Concept 3 Illustrative Program

Financial Analysis Report

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1. Introduction

1.1 Purpose of the Financial Report

The purpose of this report is to summarize the results of the financial analysis of the Regional Transit Vision Plan (Concept 3) developed by the Transit Planning Board (TPB). The objective of the financial analysis is to identify potential revenues sources and levels of participation that could be considered to implement Concept 3 by 2030.

The analysis includes a review of projected costs and revenues for the Atlanta region's existing transit services; estimated costs for Concept 3; and a preliminary financial plan reflecting several local, state, and federal funding sources and debt issuance assumptions. The report also provides the results of a series of sensitivity tests designed to identify the impact of cost increases, alternative levels of revenue, and changes in interest rates. Finally, a discussion is provided of the potential use of public-private-partnerships as a financing tool to assist in implementing Concept 3.

1.2 Background

The Atlanta region's existing transit services are provided by the Metropolitan Atlanta Rapid Transit Authority (MARTA) and six independent fixed-route bus operators. . Currently there is no unified body that provides oversight or coordinates funding for the region. Additionally, with the exception of the Georgia Regional Transportation Authority (GRTA), each operator has its own geographic boundaries, fare system, funding sources, and governing board.

The lack of a unified institutional arrangement results in numerous issues that significantly impair mobility and accessibility throughout the region:

- The number of operators and their geographical restrictions make coordinating efficient routes and schedules challenging or even impossible;
- Riders making cross-jurisdictional trips must transfer between operators, forcing them to maintain multiple fare media;
- The independent regional transit entities compete against one another for increasingly scarce State and federal funding; and
- Regional funding and governance are inadequate to implement the long-range transit vision from the adopted Regional Transportation Plan (RTP).

The Atlanta Regional Commission's 2005 Regional Transit Institutional Analysis recommended a framework for the establishment of a new transit board made up of public transportation decision makers to address the region's institutional transit problems. This framework led to the creation of the Transit Planning Board.

1.2.1 Transit Planning Board

In December 2005 and January 2006, the governing boards of the Atlanta Regional Commission (ARC), GRTA, and Metropolitan Atlanta Rapid Transit Authority (MARTA) approved a joint resolution to establish the TPB as a transit planning body for the Atlanta Region. The TPB's first meeting was held on February 16, 2006 and its work plan was adopted on April 20, 2006. The goal of TPB's work plan, which is scheduled to be completed by December 31, 2008, was to create a partnership among the region's transit providers that will lead to the establishment and maintenance of a seamless, integrated transit network for the Atlanta region. Specifically, TPB was charged with:

- Developing a regional transit plan which includes a comprehensive financial plan;
- Working to improve regional service coordination, including integrating fares, marketing and customer information;
- Measuring system performance; and
- Advocating for increased federal funding for regional transit.

The TPB includes representatives from the three major member agencies (ARC, GRTA, and MARTA), local governments, gubernatorial appointees and the Georgia Department of Transportation (GDOT). TPB Board members includes the Mayor of the City of Atlanta, the DeKalb County Chief Executive Officer, the County Commission Chairs of Cherokee, Clayton, Cobb, Douglas, Fayette, Fulton, Gwinnett, Henry, Rockdale, and Spalding Counties, the Board Chairs of GDOT, GRTA and MARTA, the General Manager of MARTA, and three Gubernatorial Appointees.

The focus of this report is addressing the comprehensive financial plan for the regional transit plan (Concept 3) component of the TPB's work plan.

1.2.2 Regional Transit Plan

Through an extensive process of technical analysis and public outreach, the TPB developed the region's long range transit plan, Concept 3. Technical analysis associated with Concept 3 identified the positive impacts related to travel time, safety, and accessibility to and connectivity between major activity centers that would result with the implementation of the Concept 3 program of projects. Throughout the development of Concept 3, TPB staff provided extensive opportunities for public input which included individual meetings with stakeholder groups, public hearings throughout the region, an online survey, and other outreach activities. As a result of the technical and outreach activities, Concept 3 was adopted as the consensus vision and guiding document for future transit investment in the Atlanta region and is the transit element of the Aspirations Plan of ARC's 2030 RTP / Transportation Improvement Program (TIP).

Concept 3 is a comprehensive, interconnected, multimodal transit network designed to provide seamless regional and localized travel opportunities. The plan includes a

significant rail component to ensure reliable travel times in the region's most heavily travelled corridors and between major activity centers. An expanded bus network is also included to expand regional transit access and provide connections to the regional transit network.

Projects identified in Concept 3 were developed based on a combination of technical analysis and guiding principles. The technical analysis reflects use of ARC's regional travel demand model to match transit modes and capacities to projected corridor demands. Based on the travel demand model results, Concept 3 includes a multimodal mix of MARTA heavy rail extensions; light rail (LRT), streetcar, and, commuter rail lines; freeway and arterial bus rapid transit (BRT) lines; express and intercity regional bus service and expanded local and activity center service. Combined with the technical analysis, the guiding principles included:

- The projects will be realistic and implementable;
- The program of projects will constitute a region-wide program that essentially includes "something for everyone";
- The full system will be completed and in operation by the end of 2030;
- A new funding stream will allow construction planning to commence on January 1, 2011;
- The projects in the region's current Transportation Improvement Plan (TIP) are consistent with Concept 3 and remain as programmed; and

The region-wide program will include an initial Fast Tracks Early Action Plan that can be implemented by 2015. The objective of the Fast Tracks Early Action Plan is to deliver projects in multiple corridors ("something for everyone") by 2015. Fast Tracks includes five to seven major rail projects identified through travel demand model results that are relatively easy to implement (i.e. no river crossings). Additionally, the financial plan assumes that Fast Tracks projected will be implemented using non-federal funds. Further details on Concept 3 and the Fast Tracks plan are provided in Section 2.

1.3 Description of the Remainder of the Report

The remainder of the report is organized as follows: Section 2 provides background information on costs and revenues for the region's existing transit systems and describes the Concept 3 components and associated costs. Section 3 summarizes the key assumptions and development of the potential plan to finance the implementation of Concept 3 by 2030. Section 4 summarizes the results of a series of sensitivity tests to analyze the impact of costs increases, changes in revenue levels, and changes in interest rates for bond issues. Section 5 describes the use of public-private-partnership as a potential tool to facilitate implementation of some of the higher performing Concept 3 projects; and Section 6 provides the key conclusions.

2. Cost and Revenue for Existing Transit Services and Concept 3

The financial plan combines the costs and revenues projected to operate the region's existing transit systems and the capital costs to enhance and maintain them in a state of good repair with the capital and operations and maintenance costs and revenues projected for Concept 3. The following sections summarize the input assumptions to the financial plan with regard to the existing transit systems' costs and revenues and development of the Concept 3 components and their respective operating and capital cost and revenue estimates.

2.1 Existing Regional Transit System Operating Costs and Revenues

The first step in developing the Concept 3 financial plan was to project costs and revenues for the existing services provided by the region's transit providers. Working with staff from the partner agencies, TPB staff obtained the following annual operating and capital (state of good repair and capital improvement program) cost and revenue estimates. Figure 1 summarizes the projected annual cost and revenue levels over the 2009 to 2030 period.

2.1.1 Annual Operating and Maintenance Costs

Annual operating and maintenance (O&M) costs were obtained from MARTA, GRTA, Cobb County, Clayton County and Gwinnet County. Annual operating costs in the financial plan reflect both steady state service and regional service enhancement projects not included in Concept 3.

Over the 2009 to 2030 period, the region's existing annual operating costs are projected to grow 6 percent per year, from $443.0 million to $1.5 billion. Total operating costs over this time period are $21.3 billion.

2.1.2 Annual Revenues for Operating and Maintenance

Annual estimates of revenues for O&M of existing regional transit services were also derived from information provided by MARTA, GRTA, Cobb County, Clayton County and Gwinnet County. The six main existing sources of funding used for O&M of the existing services and their assumed annual rates of growth consist of the following:

- Existing MARTA sales tax (of which 50 percent is assumed available for operations): 4 percent
- Fare revenue
    - MARTA: 4 percent;
    - GRTA: 7 percent;
    - Cobb County: 6 percent;

  - Clayton County: 8 percent; and
  - Gwinnet County: 7 percent.
- Region's FTA Section 5307: 2 percent
- Lease income: 3 percent
- Transit oriented development income: 3 percent; and
- Lease to service: constant at 2009 level through 2030.

Based on these assumptions, the existing revenue sources for operation and maintenance of the existing regional transit services are projected to generate a total of $13.9 billion over the 2009 to 2030 period, growing from $353.4 million in 2009 to $923.9 in 2030.

2.1.3 Annual Capital Costs

The annual capital costs associated with existing regional transit services include the costs for state of good repair improvements as well as MARTA's capital improvement program (CIP) projects that are not included in Concept 3. State of good repair and CIP costs for MARTA reflect the agency's current 10-year plan assumptions through 2018 with costs assumed to grow at 4 percent annually through 2030. MARTA's capital costs are projected to total $6.2 billion over the 2009 to 2030 period. For the remaining regional transit systems, the financial plan assumes a total of $200 million in state of good repair improvements distributed evenly ($9.1 million per year) over the 2009 to 2030.

Annual costs also include annual repayment of MARTA's existing finance mechanisms: annual debt service payments for previous bond issues and interest payments for commercial paper. Based on data provide by MARTA staff, over the 2009 to 2030 period, debt repayment for prior bond issues will decrease from approximately $132 million a year to $61 million year in the out-years of the financial plan. Interest payments on commercial paper are assumed to be $16 million per year as the financial plan assumes the agency will maintain a $400 million per year commercial paper balance over the 2009 to 2030 period based on MARTA's historic trends. In total, MARTA's debt service payments are projected to total $2.5 billion.

2.1.4 Summary of Capital Revenue Assumptions

The following capital revenue assumptions were developed in cooperation with TPB, MARTA, and the regional partners. The financial plan includes the major sources listed below, with the following assumptions for each source:

- MARTA's existing sales tax (of which 50 percent is assumed available for capital projects): revenues projected to grow 4 percent annually;

- FTA Section 5309, CMAQ and STP funds: the 14-county region is assumed to receive all of the region's FTA 5307, FTA 5309, STP, and CMAQ regional transit funds, in addition to funds currently allocated to MARTA. Based on MARTA's projections, revenue from this source is assumed to grow 4 percent annually;

- Transportation Improvement Program (TIP) programmed funds: A number of the projects identified in the Fast Track's Early Action Plan are currently incorporated in the region's TIP. The financial plan assumes these funds are available for Fast Track projects in 2009 and 2010;

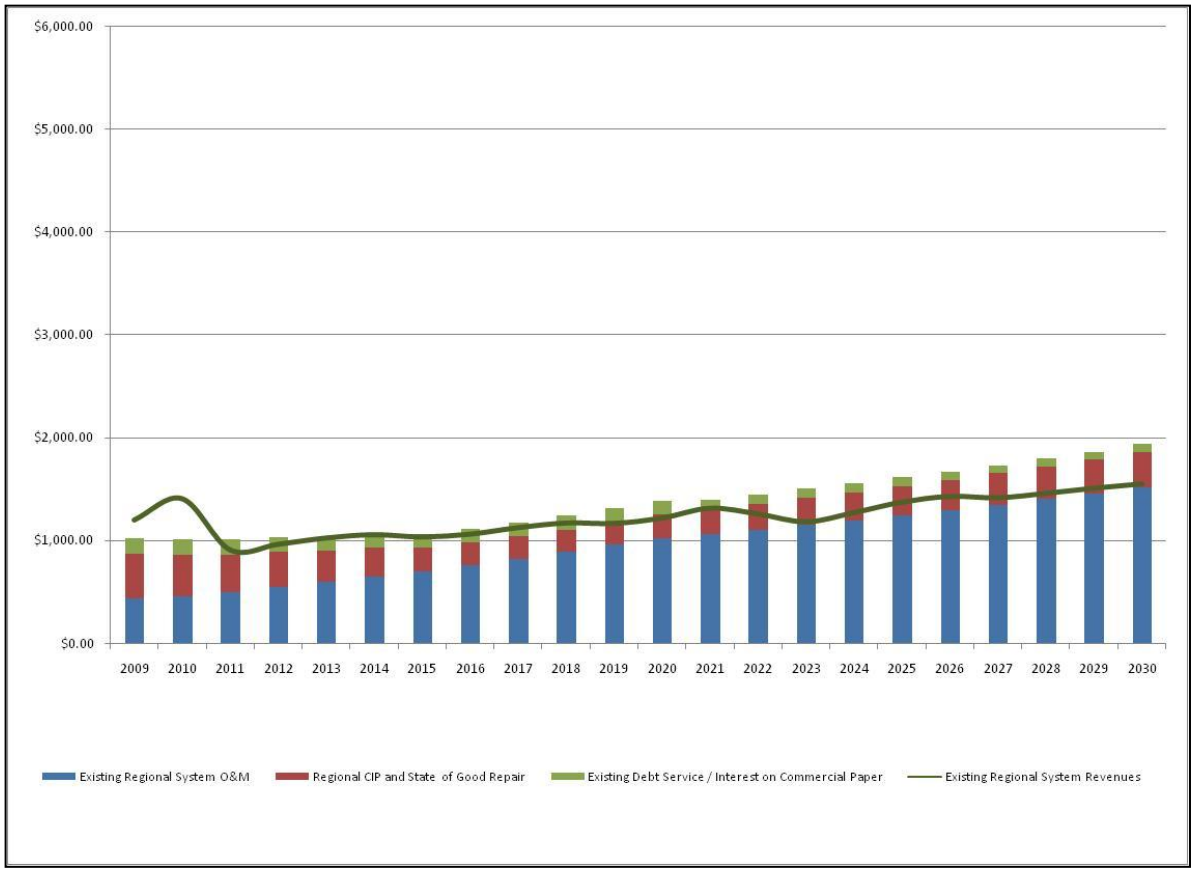
- Funding for state of good repair and capital improvement program projects: Based on a review of MARTA's recent annual data reported to the National Transit Database (NTD), the financial plan assumes that state of good repair and capital improvement projects will be funded through a combination of local, state and federal sources. Specifically, the plan assumes that federal discretionary revenue will provide 20 percent funding; the State will provide 1 percent funding; and local revenue will provide the remaining 79 percent;

- Beltline Tax Allocation District (TAD): The financial plan assumes that the Beltline TAD will generate revenue to provide 50 percent of the capital costs for the Beltline Streetcar project; and

- Net operating revenue: The financial plan assumes that if surplus operating revenue is available after accounting for all operating expense, these funds will be available for payment of capital costs and debt service.

Based on the above assumptions, the region's existing capital revenue is projected to generate a total of $13.1 billion over the 2009 to 2030 period, averaging approximately $623.8 million per year.

Figure 1: Existing Costs and Revenues



Note: Existing regional system revenues reflect combined annual operating and capital revenue estimates. Additionally, the surplus revenue shown in 2009 and 2010 reflect existing revenue for Fast Track projects that are currently in the TIP. Costs associated with these revenues are show in Figure 8.

2.2 Concept 3 Program

As stated earlier, the multimodal projects included in Concept 3 were identified in part by using ARC's regional travel demand model to match modes and transit capacities to projected corridor demands. Based on the travel demand model results, Concept 3 reflects a mix of MARTA heavy rail extensions; LRT, streetcar, and commuter rail lines; freeway and arterial BRT lines; express and intercity regional bus service and expanded local and activity center service. The program components are described in greater detail below. A map of Concept 3 is provided following the program component descriptions.

Heavy Rail: Due to the intense volumes of regional travel and the corresponding need for high capacity transit service, the following projects were identified for extensions to MARTA's existing heavy rail system:

- Northeast Line rail extension to Norcross;
- West Line rail extension to I-285/I-20; and

- Southeast branch from East Point to the proposed Southern Crescent Transportation Center.

All three projects expand high capacity radial transit service to / from the Downtown and Midtown travel markets. The Northeast Line extension provides expanded high capacity transit service to the Gwinnett Village/Peachtree Corners activity centers. The Southeast branch provides expanded high capacity transit service to the Airport activity center via a proposed Airport-Southern Crescent transit connection.

Commuter Rail: Six commuter rail lines are included in Concept 3 to provide a long distance, medium to high capacity radial transit service connection between the low density suburban and exurban areas and the Downtown and Midtown travel markets. The lines include:

- Athens to Atlanta
- Griffin to Atlanta
- Senoia to Atlanta
- Bremen to Atlanta
- Gainesville to Atlanta
- Madison to Atlanta

The Senoia, Bremen and Madison lines are proposed to provide peak period service only. In response to higher ridership demands, all-day rail service is proposed on the Athens, Gainesville and Griffin lines (including reverse peak direction service). Additionally, the Griffin and Athens lines could be interlined to provide a seamless, one-seat ride (no transfers) between the two corridors. Through-routing the three peak period lines to the Southern Crescent Transportation Center could also provide airport service via the proposed Airport-Southern Crescent transit connection.

Light Rail and Streetcar: Nine corridors were identified for high capacity regional LRT service (referred to as high capacity regional rail in the remaining sections of the report). LRT provides the speed, passenger capacity flexibility (ability to add/subtract cars based on passenger demand) and operating environment flexibility (can operate within its own right-of-way or on arterial and local streets) to provide service for long distance trips as well as activity center circulation within the urban core. The implementation plan calls for implementing all-day service in the following corridors through multiple construction phases:

- NW / I-75 Corridor
- I-575 Corridor
- North I-285 Corridor
- GA 400 Corridor
- NE / I-85 Corridor
- Downtown Connection (Northside / 17th Street to COP)

- I-20 East Corridor

Armour Decatur via EmoryAdditionally, four streetcar projects are proposed to provide medium to high capacity circulation and distribution services with Atlanta's Central Core. Streetcar projects include:

- Atlanta Beltline
- Peachtree Streetcar
- Marietta Boulevard/North/Ponce Streetcar
- Edgewood Auburn Avenue Streetcar

Both the Atlanta Beltline and Peachtree Streetcar projects are projected to be implemented in multiple phases.

Freeway Bus Rapid Transit: In order to provide medium to high capacity transit along the key highway corridors where rail service does not exist or is not planned, several Freeway BRT projects are proposed. The BRT service is expected to operate in either High Occupancy Vehicle (HOV) lanes / High Occupancy Toll (HOT) lanes or within exclusive lanes. Freeway BRT service is considered to be a significant improvement over express bus service that is required to shares travel lane with regular traffic. Additionally, frequent service, enhanced customer amenities and capital improvements that also improve travel time reliability will be included.

Freeway BRT has the advantage of serving high demand corridors with variable capacity that can respond to changing demand levels and to also provide the flexibility to operate buses off the BRT facility for circulation and distribution within nearby activity centers and residential areas. Freeway BRT projects include:

- I-285 West – I-20 West to Cumberland
- I-285 East – I-20 East to Doraville
- I-75 South – Southern Crescent to McDonough
- I-20 West – H.E. Holmes to Fulton Industrial Boulevard

Arterial Rapid Transit Projects: Arterial rapid transit projects are projected to provide medium capacity transit service along key regional arterial corridors. The intent of arterial rapid transit projects is to provide frequent transit service (e.g., 15-minute frequencies or better) with limited stops, enhanced passenger amenities and other low cost capital improvements that will improve the reliability of transit travel times (e.g., partial signal pre-emption, queue jumper lanes, and bus-only lanes where feasible). Arterial rapid transit corridors include:

- Buford Highway: Pleasant Hill to Lindbergh
- Fulton Industrial Blvd: I-20 to Camp Creek Parkway
- Piedmont Rd/Roswell Road: Lindbergh to Alpharetta

- D.L. Hollowell Parkway: North Avenue to I-285
- Campbellton Road: Camp Creek Parkway to Oakland City
- Pryor/Capital Corridor: Downtown to Lakewood
- Moreland Avenue: Emory to Thomasville
- Jonesboro Rd/McDonough Road Corridor: Fayetteville to McDonough
- Candler Road / Flat Shoals Road: Snapfinger Road to Decatur
- S. Fulton Parkway: College Park to Hwy 154
- SR 16: Newnan to I-75
- SR 34/54 Newnan to Southlake via Fayetteville
- SR 85: Fayetteville to SCTC
- US 41: SCTC/Griffin

Regional Suburban Bus Service: Concept 3 includes a network of regional suburban bus routes to provide limited stop suburb-to-suburb bus service. Service levels will be tailored to demand, but it is expected that this service will operate on 30 to 60 minute frequencies. Regional suburban bus services include:

- Cumming / Conyers / McDonough / Hampton
- Cumming to Lithonia / Stonecrest / Stockbridge / Jonesboro
- Acworth / Norcross
- Waleska / Canton / Norcross
- Dallas to Airport
- Union City / Jonesboro / McDonough
- Cumming / Norcross
- Union City to Morrow
- Jonesboro to Lawrenceville
- Hiram to Cumberland
- Acworth / Airport
- Union City / Palmetto / Newnan
- Douglasville to Acworth / SR 92

Support Facilities: Concept 3 includes a number of system-wide support facilities that will be needed to support multiple projects. These facilities include the following:

- 15 non-rail park and ride facilities;
- 15 non-rail transit centers;

- 6 LRT/Streetcar maintenance facilities; and
- 8 bus maintenance facilities.

Express Bus Service: Concept 3 includes an extensive express bus network in corridors where rail and BRT service is not proposed and where travel demand-sheds extend beyond the proposed rail and freeway alignments. Express bus corridors include:

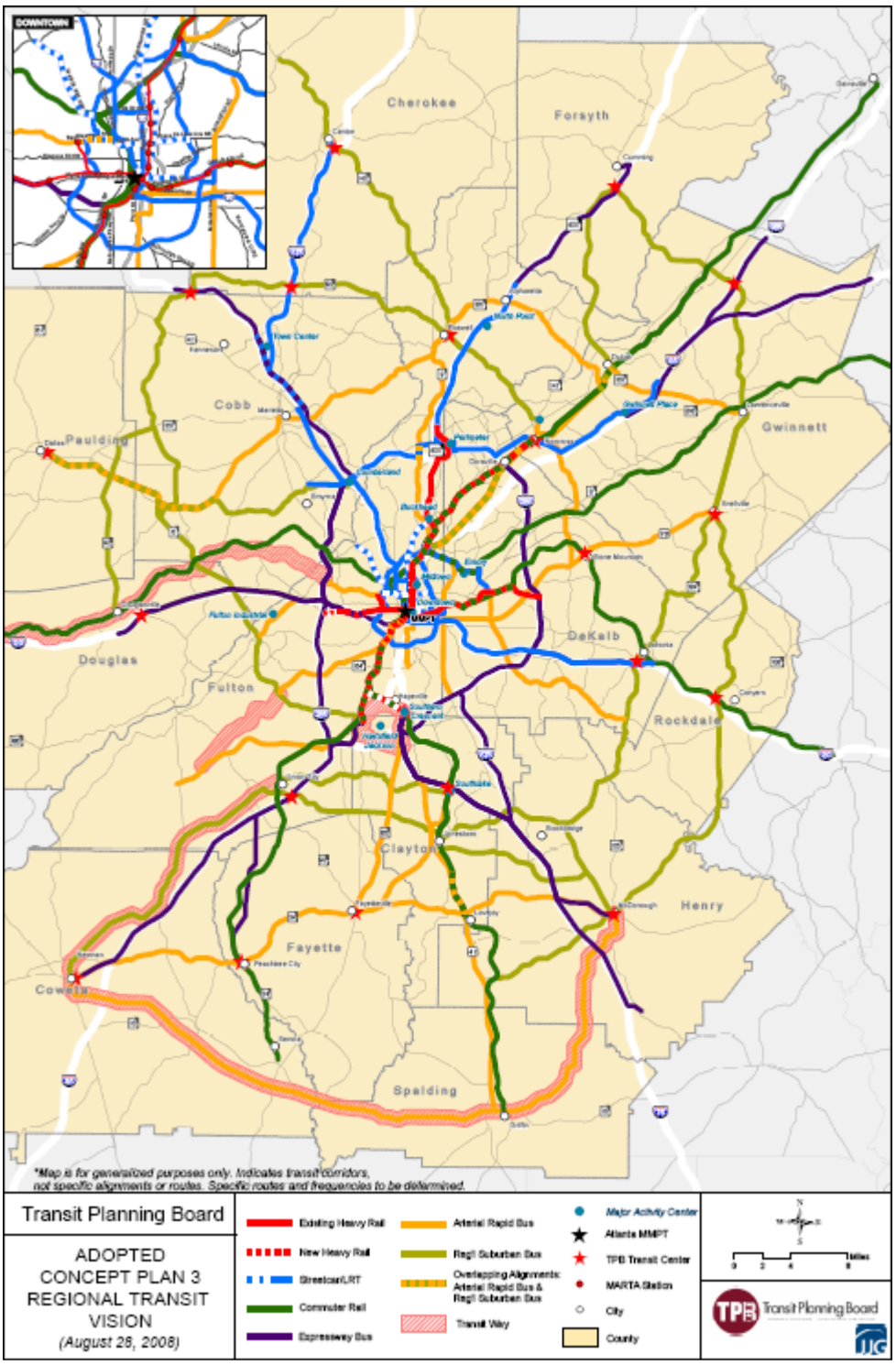
- I-75 North – north of Town Center Mall
- I-20 West – west of I-285
- I-285 Southwest – from I-20 West to the Airport
- I-285 Southeast – from I-20 East to the Airport
- I-85 South – from Newnan to College Park
- SR 316 – east of Lawrenceville
- I-675 – south of I-285
- I-985 – north of I-85
- I-85 North – north of Gwinnett Place Mall
- GA 400 – north of Windward Parkway

Transit Ways: Given the changing nature of development patterns and the clear desire to provide high-capacity transit service where there is a fit, the TPB identified Transit Ways as areas within the metro region where there is a good likelihood for greater development than currently captured by the ARC model. These areas are currently identified as Southwest Fulton; an Airport Circulator serving Clayton County; Southern metro from Newnan to McDonough, U.S. 78 West Corridor and U.S. 29 Corridor from Union City to Newnan.

As high capacity transit in these areas have not been studied, they are denoted with a hatched pink line on the Figure 2 Concept 3 map as future study areas until development patterns become clearer. Therefore, costs noted in this report do not include any costing for these potential transit locations.

Expanded Local and Activity Center Bus Service: To complement Concept 3's medium and high capacity transit services, an investment is also needed in local and activity center bus service. This service is a critical component to provide mobility for shorter trips and provide connections to the regional transit network. Concept 3 assumes new local bus service in counties that currently do not have service (Douglas and Henry Counties) and expanded local bus service in counties with existing transit services (Clayton and Gwinnett Counties). Bus circulator routes are also proposed in activity centers as a means to distribute trips from regional rail and bus lines to destinations within activity centers.

Figure 2: Concept 3 Map



2.2.1 Concept 3 Capital Costs

Order of magnitude capital costs were developed using a combination of existing local information and national averages. Capital cost estimates were developed based on existing planning documents from the various partner agencies. When planning documents were not able to provide a basis for a project's cost estimate, national cost per route mile averages were used to develop the order of magnitude estimates.

As stated earlier, implementation of Concept 3 was divided into two phases: the Fast Tracks Early Action Plan (projects completed by 2015 and in operation by 2016) and the Remainder of the Concept 3 Program (projects in operation between 2017 and 2030). As shown in the Figure 3, the Fast Tracks Early Action Plan represents approximately 13 percent of the total Concept 3 program capital costs. A detailed description of the projects included in the Fast Tracks Early Action Plan is provided in Appendix A.

Table 1 and Figures 4 and 5 below summarize the order of magnitude capital costs estimates by mode for each implementation phase in current (2008) dollars. As shown in the table and figures, modes with the ability to address the region's highest passenger capacity demands (heavy rail, high capacity regional rail, and commuter rail) account for 71 percent of the Concept 3 total costs. Of these modes, high capacity regional rail projects represent the largest share of project costs in both implementation phases; followed by commuter rail projects. Additionally, all heavy rail and Freeway BRT projects are assumed to be operational after 2016, although construction on some projects will start prior to 2016. All regional suburban bus services are planned to be implemented within the Fast Tracks period.

Figure 3: Fast Tracks Costs vs. Remainder of the Concept 3 Program (2008 dollars, in millions)

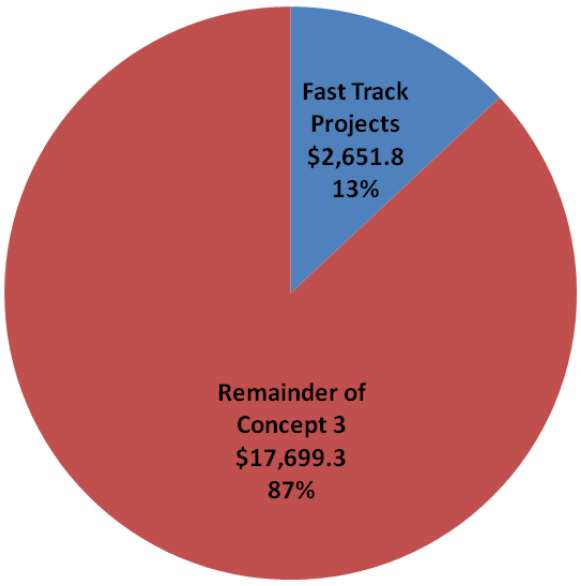


Table 1: Concept 3 Costs (2008 dollars, in millions)

Concept 3 Capital Costs		
Fast Tracks	**2008 $**	**Percent of Costs**
Heavy Rail	$0.0	0%
High Capacity Regional Rail	$1,072.5	40%
Streetcar	$390.0	15%
Commuter Rail	$647.8	24%
Freeway BRT	$0.0	0%
Arterial Rapid Bus	$139.5	5%
Suburban Bus	$110.0	4%
Support Facilities	$292.0	11%
Total	$2,651.8	
Remainder of Concept 3	**2008 $**	**Percent of Costs**
Heavy Rail	$1,985.0	11%
High Capacity Regional Rail	$7,303.5	41%
Streetcar	$1,247.5	7%
Commuter Rail	$3,426.8	19%
Freeway BRT	$2,263.0	13%
Arterial Rapid Bus	$1,085.6	6%
Suburban Bus	$0.0	0%
Support Facilities	$388.0	2%
Total	$17,699.3	
Total Illustrative Program	**2008 $**	**Percent of Costs**
Heavy Rail	$1,985.0	10%
High Capacity Regional Rail	$8,376.0	41%
Streetcar	$1,637.5	8%
Commuter Rail	$4,074.6	20%
Freeway BRT	$2,263.0	11%
Arterial Rapid Bus	$1,225.1	6%
Suburban Bus	$110.0	1%
Support Facilities	$680.0	3%
Total	**$20,351.2**	

Figure 4: Cost by Concept 3 Program Component (in millions)

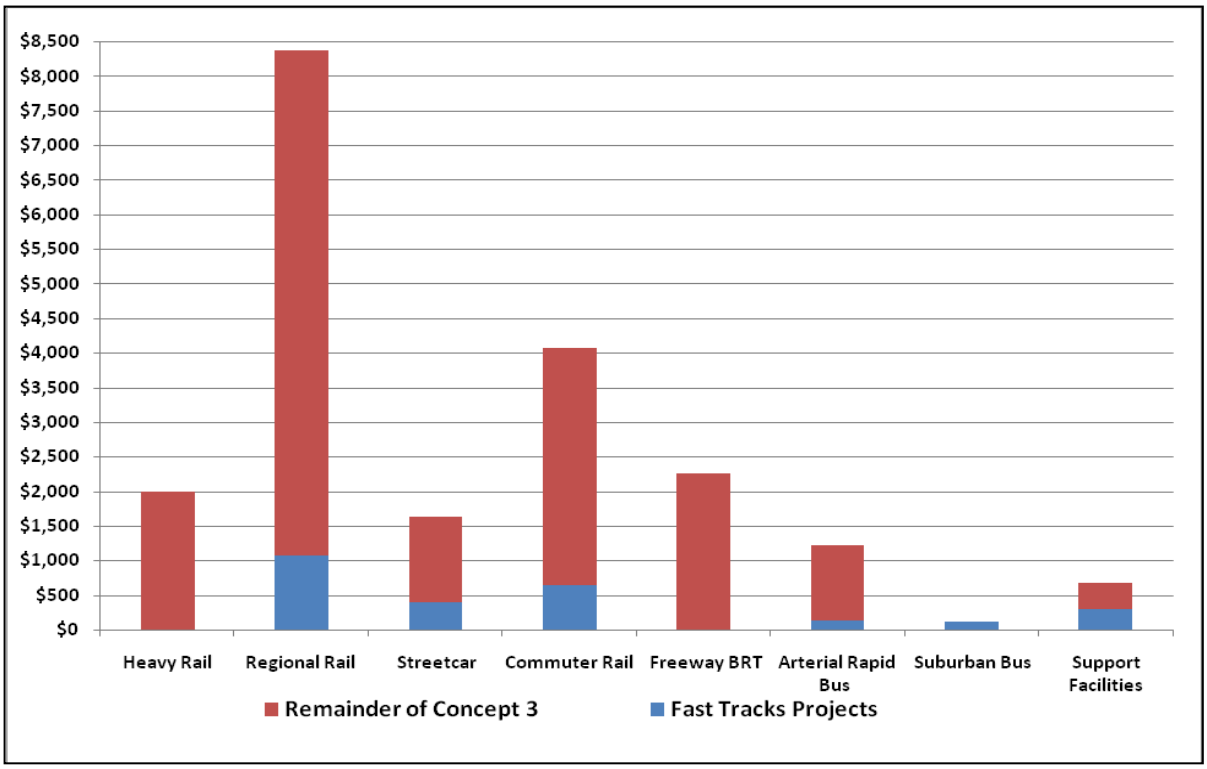
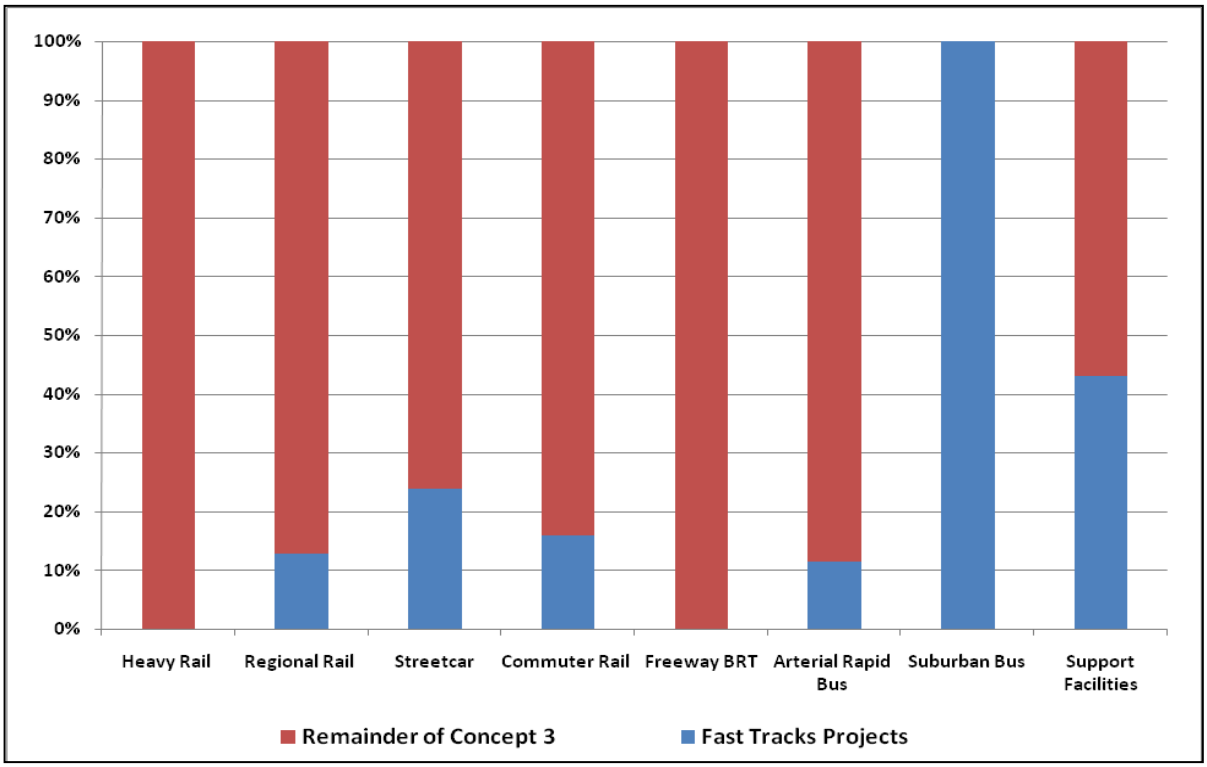


Figure 5: Percent of Costs by Program Component



To develop the financial plan and project cost in year of expenditure dollars, implementation schedule assumptions were needed for the Fast Tracks Early Action Plan and the Remainder of Concept 3. TPB staff worked with MARTA staff to develop project development and implementation plan parameters for each mode. Table 2 summarizes the estimated time assumed to implement the various modes.

Table 2: Assumed Implementation Schedules By Mode (in months)

Time in Months	Heavy Rail	Regional Rail and Streetcar	Commuter Rail	Arterial BRT	Freeway BRT
Initiation Phase (Initial Planning)	24	20	16	12	24
Planning / Environmental Phase	24	20	16	6	8
Design Phase (includes 6 months procurement)	24	18	18	14	16
Implementation Phase	36	30	18	12	24
Commissioning and Close Out	12	8	8	6	6
TOTAL MONTHS	**120**	**96**	**76**	**50**	**78**

Additionally, the following implementation schedule assumptions were used for the support facilities:

- Non-rail park and ride facilities: 44 months
- Non-rail transit centers: 44 months
- LRT maintenance facilities: 24 months
- Bus facilities: 52 months

TPB and MARTA staff developed a preliminary plan to implement Concept 3 based on the schedules identified above and a preliminary prioritization of projects based on estimated funding availability and the productivity of projects. Concept 3's preliminary implementation scheduled was then used as the basis for the projection of capital costs in year of expenditure (YOE) dollars assuming an inflation rate of 4.0 percent per year. The projection of costs and revenues in YOE dollars provides a better understanding of the financial impact of funds that would need to be expended in the actual year of expenditure and the relative effects of inflation on costs and revenues. More specifically, YOE dollar values are computed by multiplying base year dollar values by the compounded escalation factor for the year in which funds would be expended. For example, in YOE dollars, $1.00 in 2008 is equivalent to $1.04 in 2009, using an inflation rate of 4.0 percent.

Figure 6 and Table 3 compare project costs in current year dollars (2008 dollars) to YOE dollars. As shown in the figure and the table, the YOE cost estimates are significantly higher due to the cost of time (implementation schedule and annual inflation rate). While implementing projects on an accelerated schedule would reduce the YOE dollar costs, costs need to be balanced relative to available funding. It is important to note that the implementation plan used to develop the financial plan represents only one potential

scenario. Additionally, project cost estimates will be refined and implementation schedules will likely be adjusted. As a result, these costs should be considered a preliminary order of magnitude estimate.

Figure 6: Total Cost By Mode: 2008 dollars and YOE dollars (in millions)

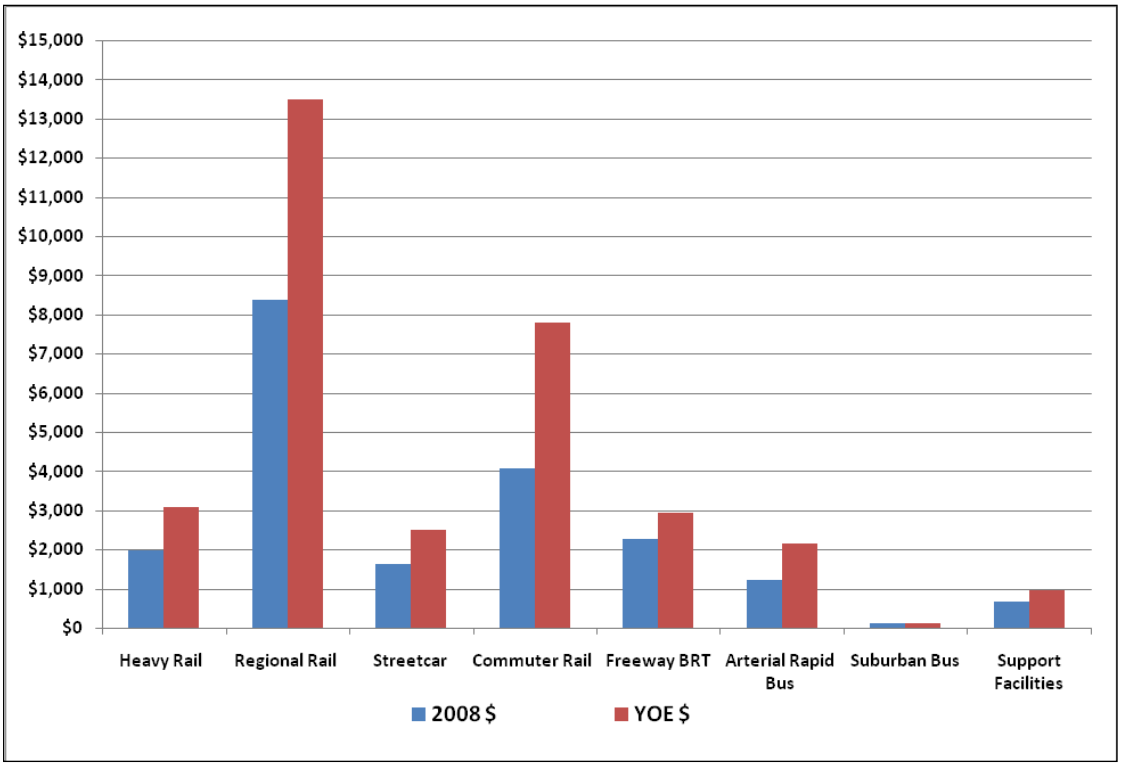


Table 3: Comparison of Concept 3 Costs – 2008 Dollars vs YOE Dollars

Summary of Concept 3 Capital Costs (2009 to 2030)		
Fast Tracks	**2008 $**	**YOE $**
Heavy Rail	$0.0	$0.0
Regional Rail	$1,072.5	$1,303.1
Streetcar	$390.0	$473.9
Commuter Rail	$647.8	$729.6
Freeway BRT	$0.0	$0.0
Arterial Rapid Bus	$139.5	$276.3
Suburban Bus	$110.0	$123.8
Support Facilities	$292.0	$451.2
Total	**$2,651.8**	**$3,357.9**
Remainder of Illustrative Program	**2008 $**	**YOE $**
Heavy Rail	$1,985.0	$3,071.4
Regional Rail	$7,303.5	$12,177.2
Streetcar	$1,247.5	$2,013.1
Commuter Rail	$3,426.8	$7,067.7
Freeway BRT	$2,263.0	$2,946.4
Arterial Rapid Bus	$1,085.6	$1,878.7
Suburban Bus	$0.0	$0.0
Support Facilities	$388.0	$494.2
Total	**$17,699.3**	**$29,648.7**
Total Illustrative Program	**2008 $**	**YOE $**
Heavy Rail	$1,985.0	$3,071.4
Regional Rail	$8,376.0	$13,480.3
Streetcar	$1,637.5	$2,487.0
Commuter Rail	$4,074.6	$7,797.4
Freeway BRT	$2,263.0	$2,946.4
Arterial Rapid Bus	$1,225.1	$2,155.0
Suburban Bus	$110.0	$123.8
Support Facilities	$680.0	$945.3
Total	**$20,351.2**	**$33,006.6**

2.3 Concept 3 Operating and Maintenance Cost Estimates

Similar to capital costs, order of magnitude operating and maintenance (O&M) costs estimates were developed using a combination of existing local information and national averages as documented in the *Atlanta Transit Planning Board Project Prioritization Process* report from August, 2007. Annual O&M costs were estimated based on annual service hours by mode and a cost per hour estimate for each mode. The costs per hour estimates are summarized below:

- Bus: $90/bus-hour.
- Streetcar: $175/train-hour for Beltline and $125/train-hour for other lines
- LRT: $375/train-hour
- Heavy Rail: $750/train-hour
- Commuter Rail: $3,100/train-hour

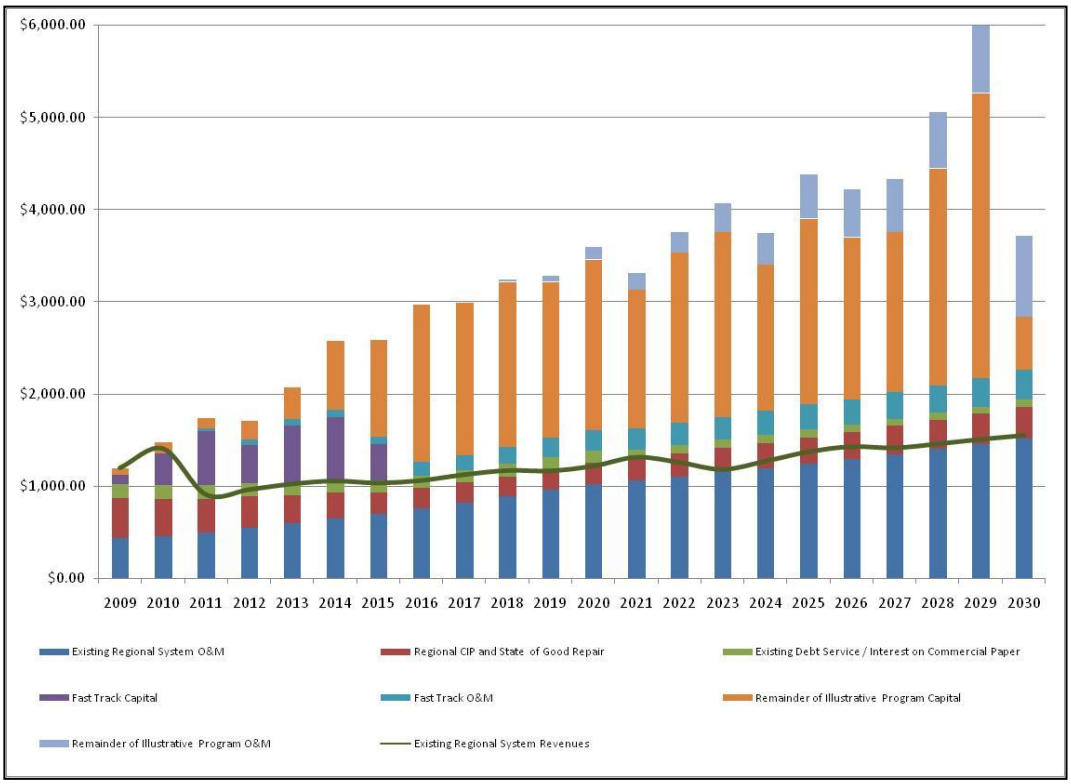
Based on the cost per hour estimates and preliminary operating plans for each project, Table 4 summarizes the total estimated O&M costs for the Concept 3 program. Over the 2009 to 2030, Concept 3 O&M costs are projected to total approximately $9.1 billion, including implementation of additional hours and miles of service and a 4 percent annual increase in the cost per service hour. In 2030 when all projects are in operation, the annual O&M costs are estimated to be $1.2 billion.

Table 4: Annual O&M Costs by Implementation Phase

Summary of Concept 3 Operating Costs	
Fast Tracks	**YOE $**
Heavy Rail	$0.0
Regional Rail	$1,107.9
Streetcar	$412.7
Commuter Rail	$409.6
Freeway BRT	$419.9
Arterial Rapid Bus	$0.0
Suburban Bus	$1,565.8
Total	**$3,915.9**
Remainder of Illustrative Program	**YOE $**
Heavy Rail	$137.3
Regional Rail	$2,286.8
Streetcar	$1,079.1
Commuter Rail	$263.0
Freeway BRT	$1,138.3
Arterial Rapid Bus	$231.1
Suburban Bus	$0.0
Total	**$5,135.4**
Total Illustrative Program	**YOE $**
Heavy Rail	$137.3
Regional Rail	$3,394.7
Streetcar	$1,491.8
Commuter Rail	$672.6
Freeway BRT	$1,558.2
Arterial Rapid Bus	$231.1
Suburban Bus	$1,565.8
Total	**$9,051.3**

Figure 7 illustrates the distribution of annual capital and O&M costs for both the Existing Regional System and Concept 3 assumed over the 2009 to 2030 period relative to annual transit system revenues from existing sources. Concept 3 costs are distinguished between the Fast Track Early Action Plan and the Remainder of the Program. The Concept 3 costs are in addition to the annual capital and O&M costs for the Existing Regional System shown previously in Figure 1.

Figure 7: Annual Operating and Capital Costs and Existing Revenues



3. Preliminary Financial Plan

As illustrated in Figure 7 above, additional revenues will be required to implement, operate, and maintain the Concept 3 long range transit vision in addition to the Existing Regional Transit System. A combination of potential local, state, and federal revenue sources and debt financing options were analyzed and considered in the context of a preliminary financial plan that would allow Concept 3 to be implemented by 2030. The results of these analyses are summarized below. The preliminary financial plan provides a base case for sensitivity testing of alternate assumptions related to growth in costs, revenues, and interest rates.

3.1 Fare Revenue

For the purposes of the financial plan it was assumed that all Concept 3 projects would generate fare revenues sufficient to cover 25 percent of their operating costs, (fare box recovery rate of 25 percent). This assumption was based on the following fare recovery rates from the 2007 National Transit Database:

- MARTA: bus: 27.4 percent, rail: 29.4 percent;
- GRTA: 26.3 percent;
- Cobb County Transit: 27.0 percent;
- Gwinnett County Transit: 25.9 percent; and
- Clayton County Transit: 30.5 percent.

Based on the 25 percent fare recovery assumption, over the 2009 to 2030 fares are projected to generate $2.3 billion in revenue.

3.2 Potential Regional Sales Tax

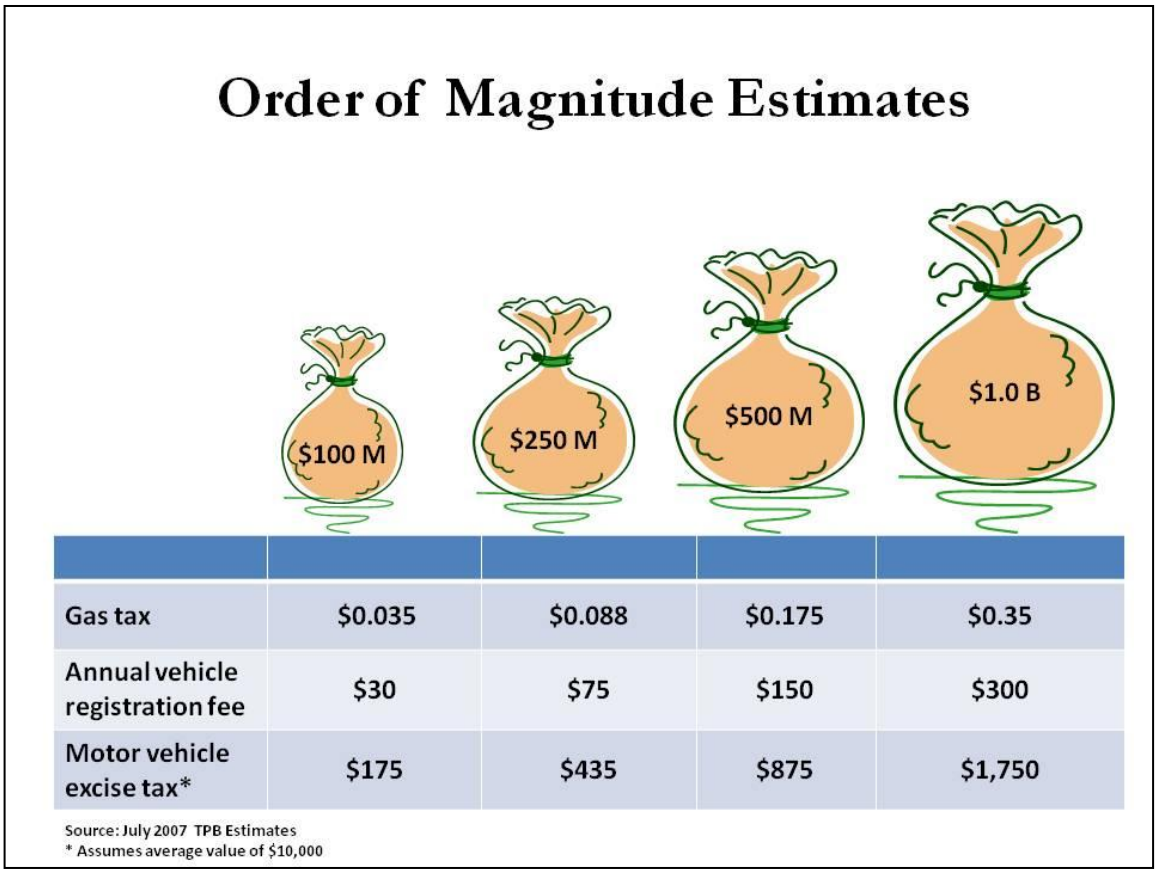
As stated earlier, currently the largest transit funding source in the region is MARTA's one-cent transit sales tax. This sales tax is collected in Fulton and DeKalb Counties (existing MARTA counties) and is projected to generate approximately $336.1 million in FY 2009. As part of the TPB work plan, a review was conducted of other potential local revenue sources that could provide funding for Concept 3. These sources included:

- Gas tax
- Annual vehicle registration
- Motor vehicle excise tax
- Expansion of a one-cent sales tax to the rest of the 14 counties

Based on Georgia State University (GSU) projections of annual sales taxes, if the one-cent sales tax was implemented in all 12 counties, in 2012 it would generate over $1.1 billion. Figure 8 provides an order of magnitude comparison of the relative revenue generation of the one-cent sales tax relative to the other three sources.

As shown in the figure, to generate the $1.0 billion annual level of funding equivalent to the one-cent sales tax would require a gas tax of $0.35 per gallon; annual vehicle registration fees of $300 per vehicle, and a motor vehicle excise tax of $1,750 assuming an average value of $10,000. Based on this analysis, it was determined that the Concept 3 financial plan should assume expansion of the one-cent sales tax as a key potential new local revenue source to assist in the implementation of Concept 3.

Figure 8: Potential Revenue from Local Sources



Gas tax	$0.035	$0.088	$0.175	$0.35
Annual vehicle registration fee	$30	$75	$150	$300
Motor vehicle excise tax*	$175	$435	$875	$1,750

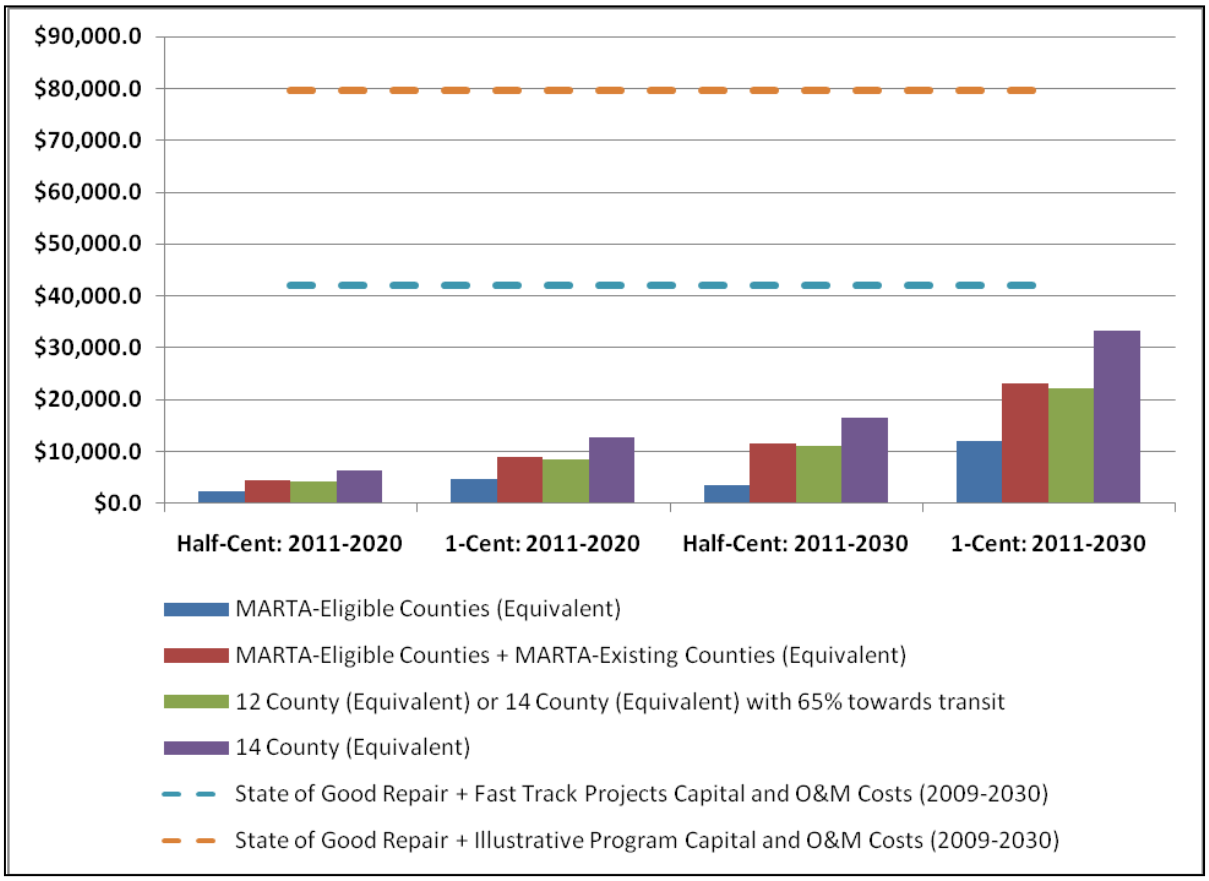
Source: July 2007 TPB Estimates
* Assumes average value of $10,000

During the development of the financial plan, questions arose regarding the geographic extent of the potential sales tax, the percentage of the sales tax dedicated to transit, the level of the sales tax rate, and how long the tax should remain in place. Figure 9 compares the projected 2009 to 2030 total costs for the Existing Regional Transit System plus the Fast Tracks portion of Concept 3 and the full Concept 3 program to the total sales tax revenue estimated under the following implementation scenarios:

- Implementation of an equivalent half-cent or a one-cent sales tax in MARTA-eligible counties (Clayton, Cobb and Gwinnett Counties);
- Implementation of an equivalent half-cent or a one-cent sales tax in MARTA-eligible counties plus an equivalent half-cent or a one-cent sales tax in MARTA existing counties (Fulton and DeKalb Counties)
- Implementation of an equivalent half-cent or a one-cent sales tax in 12 counties (does not include MARTA existing counties) / Implementation of an equivalent half-cent or a one-cent sales tax all 14 counties with 65% of tax going to transit; and
- Implementation of an equivalent half-cent or a one-cent sales tax all 14 counties

It is important to note that the equivalent one-cent sales tax is defined as a currently unknown revenue source(s) that would generate the same level of revenue as a one-cent sales tax in that county.

Figure 9: Sales Tax Levels Compared to Concept 3 Costs

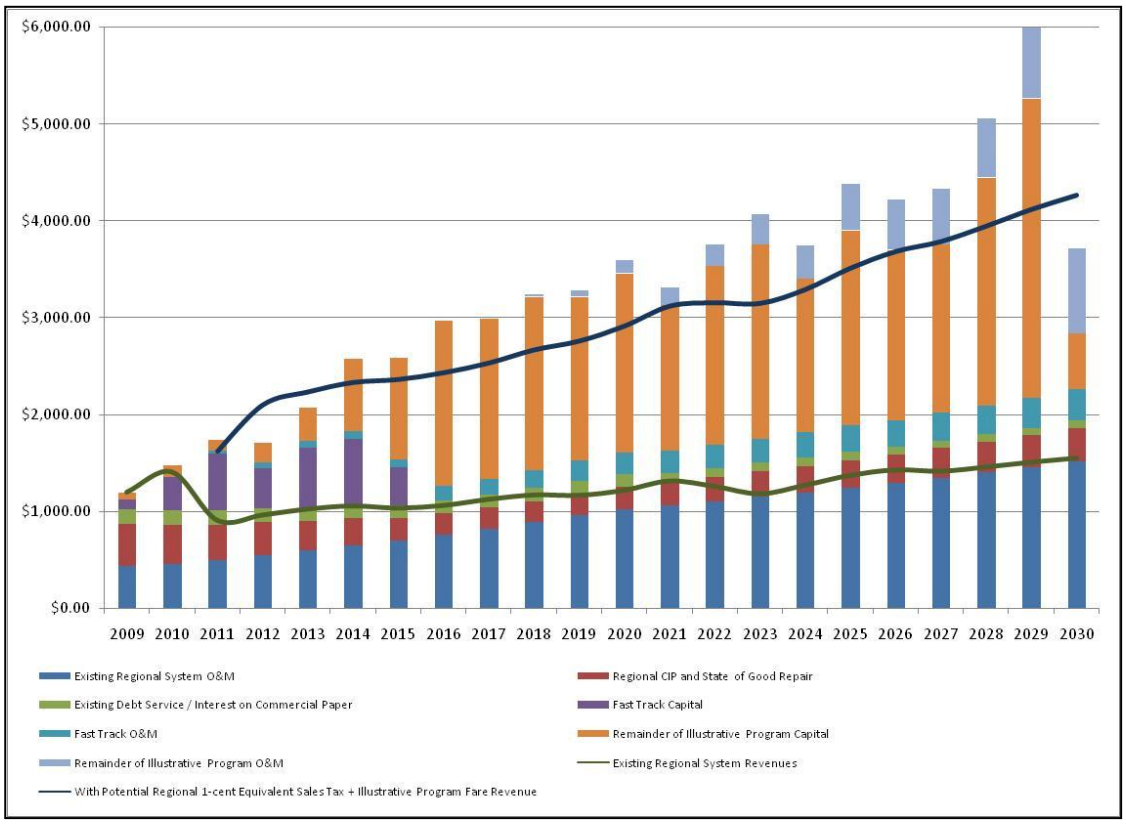


As shown in the figure, only the full one-cent sales tax equivalent in all 14 counties would generate enough revenue on its own to come close to potentially implement the Fast Tracks portion of Concept 3. However, it still provides less than half of the revenue needed to fully implement Concept 3. On this basis, the preliminary financial plan for the full Concept 3 program assumes that the following would be required:

- Implementation of the full one-cent sales tax equivalent in 14, with collection beginning January 1, 2011;
- Continuation of the sales tax beyond 2030, without sunset, in order to finance the implementation of the program over time through issuance and repayment of long term debt;
- Sales tax revenue used 50 percent for capital and 50 percent for operations.

Over the 2011 to 2030 period, the regional sales tax is projected to generate approximately $33.2 billion in revenue, or approximately $1.6 billion per year. Figure 10 compares total annual costs of Concept 3 and the Existing Regional System relative to total annual revenues generated by existing sources, Concept 3 fare revenue and the region-wide one-cent sales tax.

Figure 10: Annual Existing and Concept 3 Costs and Proposed Region-Wide Sales Tax



3.3 Additional Potential Revenue Sources

As shown in Figure 10, beginning in 2014 there is a need for additional revenue from other sources to cover annual costs to implement and operate the Existing Transit System plus the Concept 3 program. To supplement potential revenue from a new one-cent sales tax, consideration was given to State and federal funding participation. Inclusion of State funding reflect experiences of other states and cities, such as Charlotte, North Carolina, that have received significant State funding to implement major regional transit improvements.

The federal government's primary grant program to support locally-planned, implemented, and operated transit "guideway" capital investments, such as Concept 3's heavy rail, commuter rail and high capacity regional rail projects, is the Federal Transit Administration (FTA) Section 5309 New Starts program. Projects applying for New Starts funding must undergo evaluation by the FTA throughout the entire project development process. Projects are evaluated according to a variety of criteria including mobility improvements, environmental benefits, cost-effectiveness, operating efficiencies, transit supportive land use, and local financial capacity. Although in recent years the Atlanta region has not been actively involved in the New Starts program, there are a number of projects in Concept 3 that would be potentially be candidates for FTA New Starts funding.

3.3.1 State Participation

The preliminary financial plan for Concept 3 assumes two levels of State participation in funding the capital costs of proposed regional transit service:

- State grants are assumed to provide 10 percent funding for the heavy rail, high capacity regional rail, commuter rail, and suburban bus components of Concept 3. Over the 2011 to 2030 period, State revenue for these elements of the Concept 3 program would total $2.4 billion, or approximately $120 million a year.
- Since the Freeway BRT projects will be located within the existing highway system, State and/or High Occupancy Toll (HOT) Lane funding was assumed to cover 50 percent of these project costs. The reasoning for use of this revenue source is that with the conversion of a general purpose lane to an HOT lane there will be a reduction in travel capacity within the remaining travel lanes and an associated need for increased transit service. The Freeway BRT service would provide the capacity to meet the increased transit demand. Over the 2013 to 2024 Freeway BRT implementation period, State/HOT lane revenue would total $1.5 billion, which is approximately $125 million a year.

3.3.2 Federal Participation

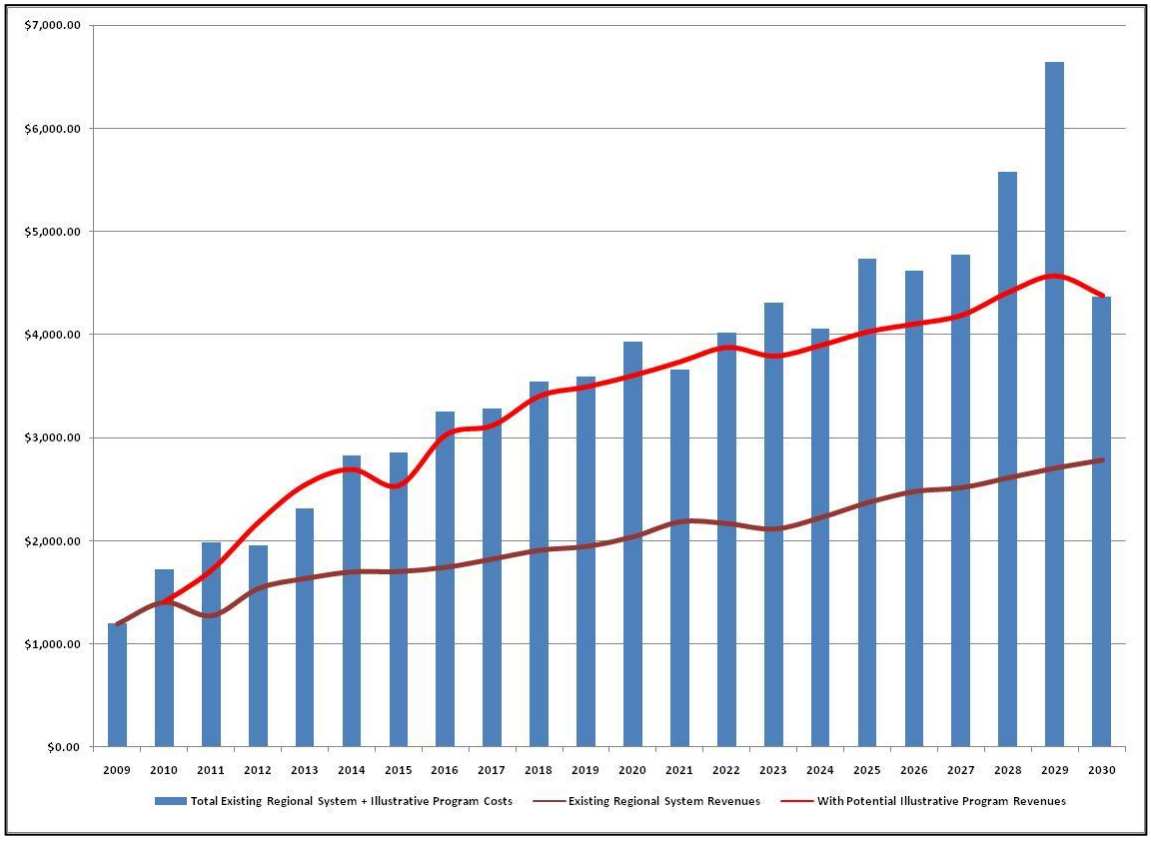
The preliminary financial plan for Concept 3 assumes that:

- FTA New Starts funds will provide 20 percent of the total capital costs of the heavy rail, high capacity regional rail, and commuter rail components of the Concept 3 program;
- The region would enter into a memorandum of understanding (MOU) with FTA. Under the MOU, the 20 percent federal funding share would include the cost of projects completed during the Fast Tracks Early Action Plan that are planned to be 100 percent locally funded over the 2009 to 2015 period. This strategy reflects a similar MOU that was recently implemented between the Utah Transit Authority and FTA to implement the five-corridor FrontLines 2015 Program.
- FTA New Starts funds would be received over the 2016 to 2030 period;

Over the 2016 to 2030 period, the financial plan projects receipt of $4.9 billion in New Starts funds, or an average of $329 million per year.

Figure 11 compares total annual costs of Concept 3 and the Existing Regional System relative to total annual revenues generated by the combination of State and federal grants, existing sources, Concept 3 fare revenue and the region-wide one-cent sales tax.

Figure 11: Annual Costs, Existing Revenues and Potential Revenues



3.4 Potential Debt Financing

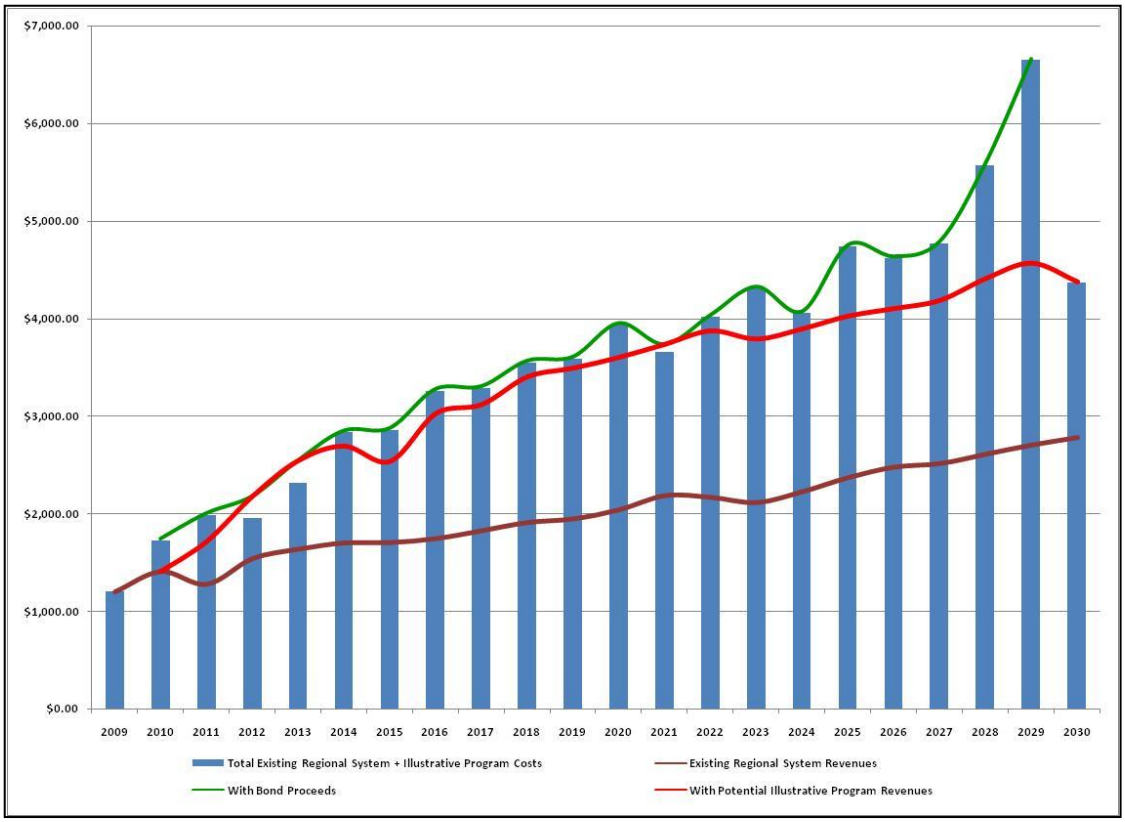
As shown in Figure 11, while the addition of State and federal grants narrows the annual and total funding shortfall to implement Concept 3, shortfalls still exist. To address the annual shortfalls, the financial plan assumes long-term bonds will be issued.

To maintain consistency with MARTA's existing financing terms and conditions, the financial plan incorporates MARTA's current bond issuance assumptions (30-year term, 6 percent interest rates, and interest-only payments the first ten years) and bond test requirements to ensure that annual debt service payments do not exceed available funding resources. The bond test requirements include:

- Minimum annual ending balance of at least $20.0 million;
- Maximum outstanding level of commercial paper of $400.0 million;
- Minimum annual debt coverage ratio of 1.0 (ratio of bondable sales tax to debt service payment); and
- Maximum of 90% of annual bondable sales tax used for payment of debt service.

As shown in Figure 12, implementation of Concept 3 by 2030 will require use of bond proceeds nearly every year. Over the 2011 to 2030 period, a total bonding level of $8.2 billion is projected to be required, or about $410.8 million per year, with all bond test requirements achieved.

Figure 12: Annual Costs, Existing and Potential Revenue, and Debt Financing



4. Sensitivity Tests

Three types of sensitivity tests were conducted to assess if the preliminary financial plan provided sufficient capacity to allow for the implementation of Concept 3 by 2030 under alternate assumptions with regard to the rates of growth in costs and revenues. These tests included:

- Increasing the base case assumption of a 4.0 percent annual capital and O&M cost escalation rate assumed in the preliminary financial plan;
- Adjusting the level of financial participation from State and federal grant programs; and
- Adjusting the base case assumption of a 6.0 percent interest rate on bonded indebtedness.

For each test, a comparison was made of the total level of bonding required to implement Concept 3 by 2030 relative to the $8.2 billion in bonding required under the base case assumptions in the preliminary financial plan. A graphic representation of this comparison is provided for each sensitivity test.

4.1 Sensitivity Test: Cost Increases

The sensitivity testing for increases in cost considered two sets of scenarios. The first set of scenarios tested the impact of increasing the annual cost escalation rate above 4 percent, while maintaining the base case assumption of annual growth in sales tax revenues. The second set of scenarios tested the impact of increasing the annual cost escalation rate above 4 percent with commensurate decreases in the annual rate of growth in sales tax revenues.

4.1.1 Increased Cost Escalation Rate

Under this set of tests, annual capital and O&M costs were assumed to grow at rates exceeding the 4.0 percent rate assumed in the base case, while maintaining the annual rate of growth in sales tax revenues. Sensitivity tests were conducted to determine the impact of increasing the annual cost escalation rate to:

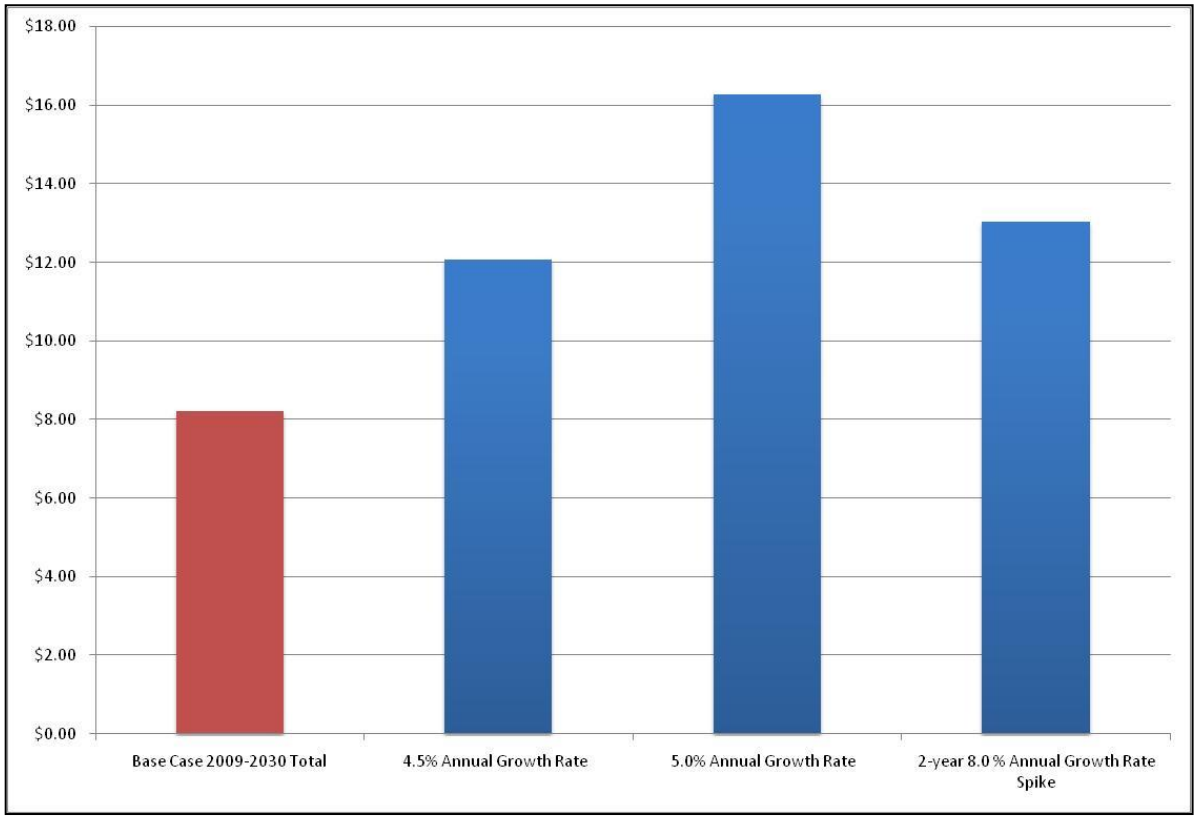
- Increasing the annual rate of cost growth by 0.5 percent, to 4.5 percent;
- Increasing the annual rate of cost growth by 1.0 percent, to 5.0 percent; and
- Increasing the annual rate of cost growth by 4.0 percent, to 8.0 percent for two years (2009 and 2010) and then returning to 4.0 percent annual cost increase over the 2011 to 2030 period.

As shown in Figure 13, the results indicate that in order to implement Concept 3 by 2030, total bond levels would need to increase from the base case of $8.2 billion to:

- $12.1 billion for a 4.5 percent annual cost escalation rate;
- $16.3 billion for a 5.0 percent annual cost escalation rate; and

- $13.0 billion for an 8.0 percent cost escalation rate spike for two years and then a return to the 4.0 percent base case annual cost escalation assumption.

Figure 13: Total Bonds Issued: Cost Growth Increase



4.1.2 Sensitivity Test: Increased Cost Escalation Rates with Commensurate Reductions in Sales Tax Growth Rates

This set of sensitivity tests considered the impact of annual sales tax revenues diminishing at the same rate as costs are projected to increase. Sensitivity tests were conducted to determine the impact of:

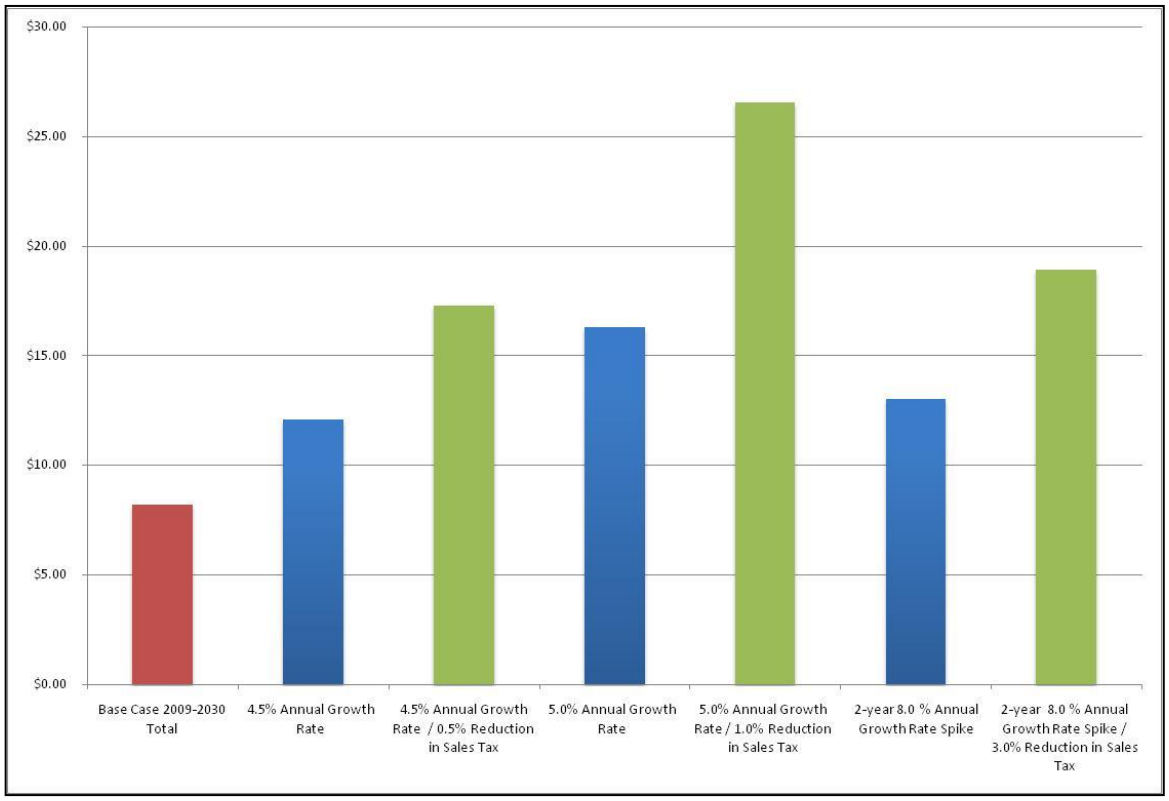
- Increasing the annual rate of cost growth by 0.5 percent, to 4.5 percent, while decreasing the annual rate of sales tax revenue growth by 0.5 percent;
- Increasing the annual rate of cost growth by 1.0 percent, to 5.0 percent, while decreasing the annual rate of sales tax revenue growth by 1.0 percent; and
- Increasing the annual rate of cost growth by 4.0 percent, to 8.0 percent for two years (2009 and 2010) and then returning to 4.0 percent annual cost increase over the 2011 to 2030 period, while decreasing the annual rate of sales tax revenue growth by 3 percent for two years and then returning to the annual rates developed by GSU for the 2011 to 2030 period.

As shown in Figure 14, the results indicate that in order to implement Concept 3 by 2030, total bond levels would need to increase from the base case of $8.2 billion to:

- $17.3 billion for a 4.5 percent annual cost escalation rate and 0.5 percent decrease in annual sales tax revenue;
- $26.6 billion for a 5.0 percent annual cost escalation rate and 1.0 percent decrease in annual sales tax revenue; and
- $18.9 billion for an 8.0 percent annual increase for two years (2009 and 2010) and then returning to 4 percent annual cost increase over the 2011 to 2030 period and a 3 percent decrease in annual sales tax for two year and then returning to the annual rates developed by GSU for the 2011 to 2030 period.

This analysis indicated that the system-wide annual ending balance and MARTA bond tests would be achieved for five of the six sensitivity tests conducted. However, under the test assuming a 5.0 percent annual cost escalation rate and 1.0 percent decrease in annual sales tax revenue, the system-wide annual ending balance and MARTA bonds tests would fail beginning in 2027. This means that the preliminary Concept 3 implementation plan could not be implemented by 2030 under this scenario.

Figure 14: Total Bonds Issued: Cost Increase and Sales Tax Revenue Reduction



4.2 Sensitivity Test: State and Federal Funding Participation

The sensitivity testing of State and federal grant funding participation levels considered three scenarios. Two scenarios tested the impact of increased State funding participation and the third scenario tested the impact of reduced FTA New Starts funding.

4.2.1 Increased State Revenue

The base case assumptions in the preliminary financial plan call for the State to fund 10 percent of heavy rail, high capacity regional rail, commuter rail and suburban bus capital costs. Sensitivity tests were conducted to determine the impact of the State participation in these Concept 3 program components increasing to provide:

- 10 percent operating revenue in addition to the base case assumption of providing 10 percent of capital costs; and
- 25 percent operating revenue and 25 percent of the capital costs.

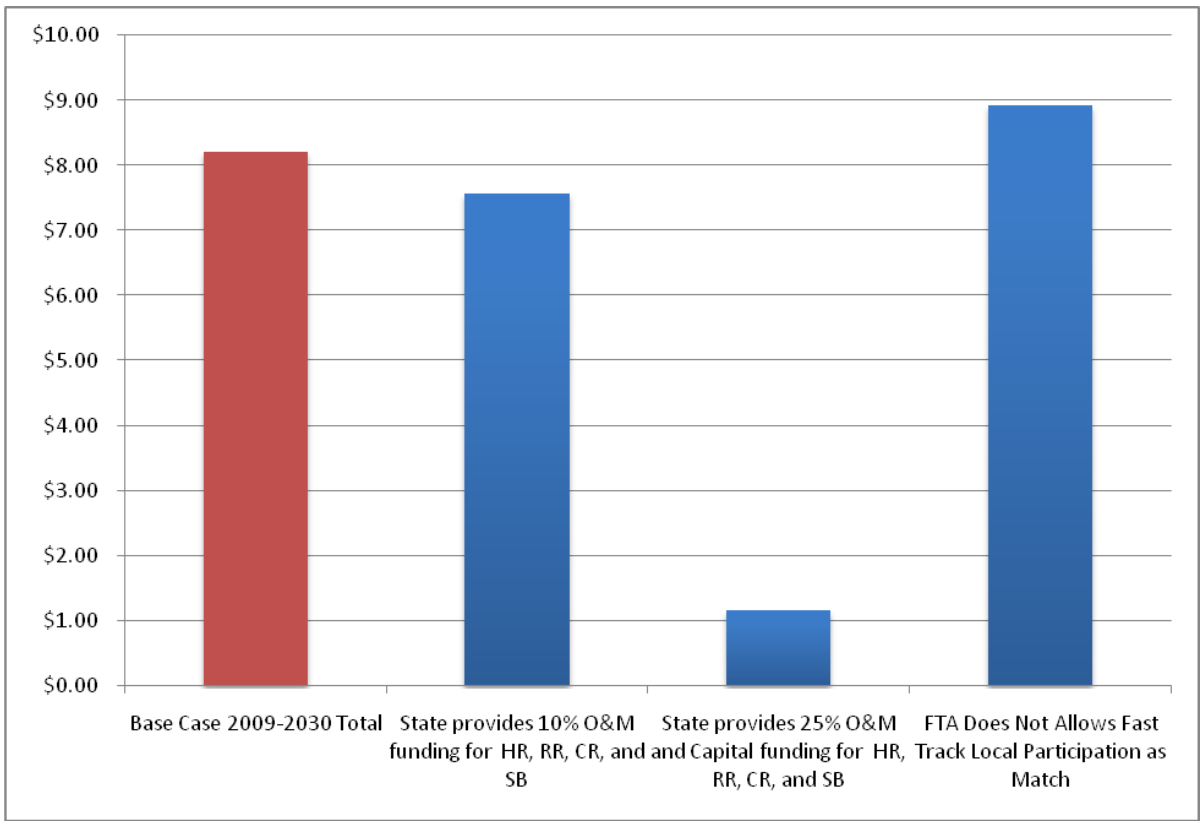
As shown in Figure 14, total bonding levels required for these scenarios would decrease from the base case of $8.2 billion to $7.6 billion and $1.2 billion respectively.

4.2.2 Reduced FTA New Starts Funding

As stated earlier, the base case assumption in the preliminary financial plan is that FTA New Starts funds will provide 20 percent of the capital funding required for the heavy rail, high capacity regional rail, and commuter rail components of Concept 3. This includes an assumption that the 20 percent in FTA funds will include credit for the Fast Tracks costs initially paid 100 percent locally over the 2009 to 2015 period, with FTA funding to be received over the 2016 to 2030 period.

For this sensitivity test, it was assumed that FTA's 20 percent capital cost share would exclude credit for the 100 percent local funding provided for Fast Tracks projects costs, resulting in a reduced level of FTA funding. As shown in Figure 14, the reduction in FTA funding would result in bonding levels increasing from $8.22 million in the base case to $8.92 million.

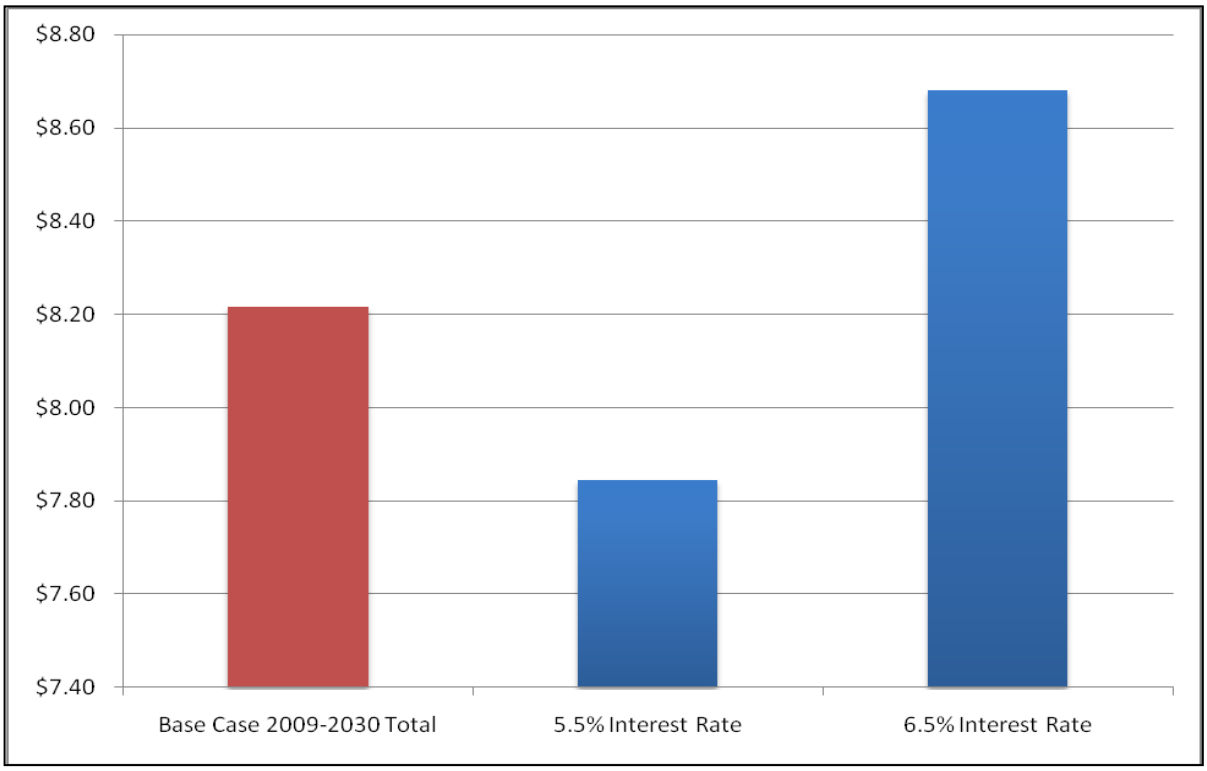
Figure 15: Sensitivity Test: Grant Revenue



4.3 Sensitivity Test: Changes in Bond Interest Rates

Since issuing debt is a key component of the Concept 3 preliminary financial plan, sensitivity tests were conducted to determine the impact of increasing or decreasing bond interest rates. The base case assumption in the preliminary financial plan calls for bonds to be issued at a 6 percent interest rate. The two sensitivity test scenarios analyzed the effect of decreasing and increasing the interest rate by 0.5 percent, to 5.5 percent and 6.5 percent respectively. As shown in Figure 16, compared to the $8.2 billion in bonding required in the base case, bonding levels would decrease to $7.9 billion in the decreased rate scenario and would increase to $8.7 billion in the interest rate increase scenario.

Figure 16: Sensitivity Tests: Changes in Bond Interest Rates



4.4 Sensitivity Tests Summary Results

Figure 17 illustrates in ascending order the comparative impact of the 11 sensitivity tests on the level of bonding required for the Concept 3 program. With the exception of the 5 percent annual increase in costs and 1.0 percent decrease in annual sales tax revenue scenario, Concept 3 could be implemented by 2030 under 10 of the 11 scenarios. As shown in Figure 17, the 1.0 percent cost increase / revenue decrease scenario would require a significant increase in bonding to implement the program by 2030.

Figure 17: Sensitivity Tests Summary Results

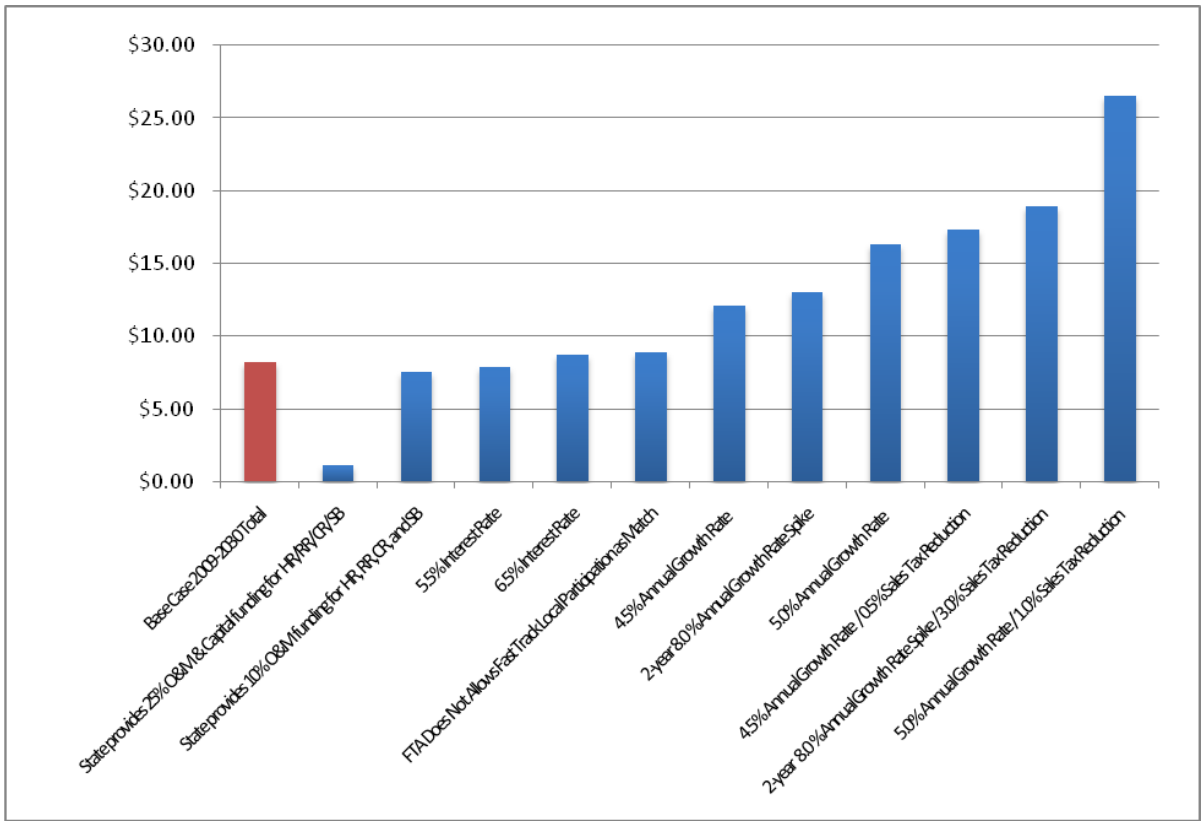


Figure 17 suggests that the level of state participation in the program could have a significant impact on the development of the program. However, it also suggests that external factors such as overall inflation and sales tax growth will have a significant impact on the ability of the region to implement a program such as Concept 3.

5. Public-Private-Partnerships

Public-Private-Partnership (PPPs) provide a potential tool to assist with implementing some projected higher performing Concept 3 projects. According to the American Public Transportation Association (APTA) Task Force on Public-Private Partnerships white paper "*Public-Private Partnerships In Public Transportation: Policies and Principles for The Transit Industry*", by definition:

> *A public-private partnership is a contractual arrangement between a public or governmental agency and a private entity that facilitates greater participation by the private entity in the delivery and operation of an infrastructure project, facility or service. Typically, within the transport sector, such an arrangement involves one or more aspects of the funding, financing, planning, design, construction, operation and maintenance of a transportation facility. Within the commonly utilized context of financing and/or delivering projects, a public-private partnership is an approach or mechanism that is utilized to move the*

> *funding process from a single strategy of governmental aid through grants to regional and local authorities, to a more diversified approach involving increased utilization of private capital markets. In some cases – generally outside the United States – private firms have injected capital into the building and construction process of new and improved transit capital facilities, in anticipation of an acceptable level of return on investment which may be delivered through farebox revenues, public subsidies, and/or performance/availability payments. Of course, capital is only one of the requirements for success: good projects and good management are also necessary.*

As stated above, the primary objective of PPPs is to improve/enhance project development and/or service delivery through creative approaches to sharing project risk. When entering into a PPP agreement the private and public sectors have different expectations:

- **Private Sector Expectations:** Increased professional service opportunities and/or financial/investment opportunities, in return for an acceptable rate of return based on risk
- **Public Sector Expectations:** Combination of lowered cost, expedited delivery, improved service quality, new technology, risk reduction, increased technical/managerial expertise

Potential benefits of PPPs include:

- Expedited completion compared to conventional project delivery methods;
- Potential project cost savings;
- Improved quality and system performance including use of innovative management techniques;
- Substitution of private resources and personnel for increasingly constrained public resources ; and
- Potential access to sources of private capital.

The APTA Task Force on PPP also developed seven principles for PPPs as a means of assuring that such partnerships protect both the public interest and provide commensurate benefit for private partners. From the Task Force's white paper "*Public-Private Partnerships In Public Transportation: Policies And Principles For The Transit Industry**",*** the following principles were designed to provide a potential framework for assessing the efficacy of PPPs for funding, financing, and delivering public transportation services and facilities.

- ***Principle 1: Public-private partnerships are a tool in the transit toolbox****. PPPs should be viewed as one of a number of techniques and mechanisms for funding, delivering and sustaining transit facilities and services. PPPs can be used successfully for a variety of purposes, including delivery of major projects, provision of cost-effective services, and utilization of contractual relationships to improve quality and timeliness of capital projects and services. However, PPPs should not be viewed as an ultimate funding solution in the absence of other resources, but as a*

complement to existing and traditional sources of funding for service expansion, modernization, and infrastructure investment.

- ***Principle 2: Public-private partnerships should be structured to maintain the public interest****. In the vast majority of circumstances, control and oversight of the public asset – the facilities and services provided to the public – must remain with an entity whose "client" is the public interest. Thus, the governmental or public entity that holds this responsibility must carefully evaluate the transfer of risk and concomitant transfer of control within a proposed public-private partnership to assure that these transfers bring commercial benefits and foster creative use of non-traditional resources, while maintaining sufficient control/oversight to assure the preservation and sustainability of the public interest.*
- ***Principle 3: Public-private partnerships should be utilized as a strategy to achieve public goals and support long-range regional plans.*** *PPPs are often proposed and implemented as a means of implementing projects or selling/leasing assets in ways that do not directly support regional goals for multi-modal transport investment. There have been projects or asset sales done primarily because they could be done, not because such undertakings achieved outcomes that met a regional prioritization of transportation infrastructure investment. Thus, public transportation assets should not be sold simply for the sake of general revenue enhancement, especially if the generated revenues are used for purposes other than for improving transportation facilities and/or services.*
- ***Principle 4: Public-private partnerships are most effective in those cases where a long-term revenue stream can be assured.*** *Some agencies believe that the private sector can be a viable source of funding when no tax or general revenues are available and no identifiable revenue stream exists. The reality, of course, is that the private sector can only be a useful partner in those cases where financing – as contrasted to funding – is the issue, or in those rare cases where capital invested at risk by a private partner has a strong probability of generating a long term return on that investment. In order for such a return to be generated, the presence, predictability and stability of a long-term revenue stream in mandatory.*
- ***Principle 5: Public-private partnerships should be based on constructive and beneficial sharing of risk.*** *One of the key premises underlying public-private partnerships is the beneficial sharing of risks inherent in project development. This means that the public sector and private sector assume respectively those risks which each are best suited to accept. For example, a common risk allocation may be for the private sector to accept the risks inherent in the cost and timeliness of construction, while the public sector is more capable of accepting the risks associated with environmental clearance, public acceptance, and ridership/revenue for development of a capital project.*
- ***Principle 6: Public-private partnerships should be used constructively for increasing procurement flexibility and project effectiveness.*** *There are many opportunities for maximizing the competitiveness and performance of capital or operating assets through creative utilization of private resources. Numerous examples exist in the literature that demonstrate significant cost and time savings*

owing to private contracting. However, in some states, PPP deployments are obstructed by procurement statutes that have not kept pace with the emergence of PPPs, inhibiting some agencies from PPP deployments. In addition, where life-cycle costs and benefits are considered, the tax consequences of long-term private investment may substantially reduce the required public subsidy for transit facilities and services. Thus, utilizing federal tax policy as an instrument for promoting PPPs can be a clearly positive action, presuming that tax revenue lost through such mechanisms is less than the direct federal investment necessary to achieve the same outcome through a traditional grant-in-aid approach.

- ***Principle 7: Public-private partnerships for tolling and other forms of congestion pricing should be structured to increase transit usage.*** *The concept of "high performance corridors" is gaining traction, particularly in light of energy saving and global climate change. Increasing the transit share should be a desirable objective in any undertaking to reduce congestion, improve air quality, and reduce dependency on foreign oil.*

5.1 Opportunities for Public-Private Partnerships in the Concept 3 Program

The Concept 3 program provides a variety of potential opportunities for private sector participation in project implementation and operation. These opportunities include private sector involvement in:

- Project acceleration
- Advancement of multiple projects simultaneously
- Financial participation
- Joint equipment / rolling stock purchase
- Transit oriented development / joint development
- Outsourcing of:
    - Operations
    - Maintenance

The TPB, MARTA, and the participating agencies could assist the private sector in identifying opportunities for public-private partnerships by providing background information about the projects comprising the program. Such information could include the level of prior study, environmental status, projected patronage, and estimated capital and operating costs of the projects in the program sufficient for the private sector to screen for opportunities of interest. Conversely, the agencies could target particular projects and/or program components as public-private partnership opportunities.

6. Key Findings

The preliminary financial plan for Concept 3 identifies potential funding sources; levels of local, State, and federal financial participation; and a conceptual financing strategy that would allow for the implementation and operation of the program by 2030. Over time, Concept 3 will be refined from a regional transit vision to a detailed program of projects, with associated refinement in the funding sources, levels of financial participation, and financial strategy required for implementation.

The preliminary sources and uses of funds associated with the Concept 3 program are summarized in Table 5. As show in the table, the key funding and financing concepts comprising the preliminary financial plan for Concept 3 include the following:

- Implement a region-wide one-cent sales tax equivalent. Revenue from this source would provide a long term, stable revenue source to allow for the issuance and repayment of long term bonds for capital, provide revenue to support annual system-wide O&M costs, and achieve and maintain the system in a state of good repair;

- Secure State participation in funding the capital costs associated with the regional and multi-county high capacity transit components of the Concept 3 program. These include the heavy rail, high capacity regional rail, and commuter rail components of the program, as well as the freeway bus rapid transit and suburban bus components. As shown in the sensitivity tests, State participation in funding of operating costs would further strengthen the financial plan;

- Work with the Federal Transit Administration to define a candidate program of fixed guideway projects for FTA New Starts funding. In addition, pursue federal discretionary and formula grant opportunities to fund system-wide costs for capital, O&M, and state of good repair;

- Develop a phasing strategy to facilitate accelerated implementation of the Concept 3 program and to balance projected capital and operating costs with projected revenues. Incorporate opportunities to accelerate implementation through issuance of short term and long term debt to address annual funding shortfalls;

- Identify and secure supplementary sources of funding and opportunities for cost-sharing, including the potential for tax allocation district funding and value capture from transit oriented developments; and

- Work with the private sector to identify potential opportunities for public-private partnerships to facilitate program implementation and service delivery.

The ability to pursue and implement the assumptions listed above will require the continuation of the regional partnership that was initiated and enhanced through the TPB

process. The region's transit officials will need to speak as a unified voice to a variety of audiences including the following:

- The State legislature to establish the ability to enact a one-cent regional sales tax and to request and obtain capital funding for multi-jurisdictional Concept 3 projects;
- The Region's federal Congressional delegation to develop a comprehensive plan to apply for and obtain FTA New Starts funds and discretionary funds for State of Good Repair projects; and
- The general public to educate and promote the need for and the benefits of Concept 3 in anticipation of a referendum to implement a possible region-wide transportation sales tax.

Table 5: Concept 3 Sources and Uses of Funds Summary

Costs	Total	Subtotals
Operating Costs	**$30,331.13**	
Existing Regional System		$21,279.85
Fast Track Projects		$4,003.03
Remainder of Concept 3 Projects		$5,048.25
Capital Costs	**$42,542.48**	
CIP and State of Good Repair Capital		$6,358.14
Fast Track Projects Capital		$3,168.18
Remaining Illustrative Program Capital		$29,746.15
Retire Commercial Paper		$3,270.00
Debt Service	**$6,345.37**	
MARTA Current Debt Service		$2,116.10
Interest on Commercial Paper		$349.80
Concept 3 Debt Service		$3,879.47
Revenues		
Operating Revenues	**$34,017.40**	
Total Existing System O&M Revenue		$14,093.08
FTA Section 5307 Regional Balance		$378.26
Farebox Revenue - Fast Tracks Projects		$1,000.76
Farebox Revenue - Remainder of Concept 3		$1,262.06
Sales Tax (12 + Existing MARTA-equivalent)		$16,609.13
Advanced from Beginning Balance		$674.11
Capital Revenues	**$50,256.07**	
Net Operating Revenue		$3,686.27
Federal Funds		
Existing Regional System Formula (5309, CMAQ, STP)		$1,063.34
Existing Regional System State of Good Repair Discretionary		$1,271.63
Concept 3 FTA New Starts (Heavy, Regional, & Commuter Rail)		$4,869.81
State Funds		
Existing Regional State of Good Repair		$63.58
Concept 3 Heavy, Regional, Commuter Rail, and Suburban Bus Funds		$2,400.01
Concept 3 Freeway Bus / HOT lanes		$1,472.24
Local Funds		
Existing MARTA Sales Tax		$5,845.89
Proposed Sales Tax (12 + equivalent in existing MARTA counties)		$16,609.13
Other (Beltline TAD)		$639.18
Other (TIP Funds)		$574.31
Debt Issues		
Commercial Paper		$3,545.0
Bond Proceeds: Fast Tracks		$1,121.7
Bond Proceeds: Remainder of Concept 3		$7,094.0

Appendix A: Fast Tracks Early Action Plan

Fast Tracks Early Action Program Assumptions

The following summarizes the projects identified for the Fast Tracks Early Action Plan based on TPB staff's October 2008 *Updated Transit Planning Board Illustrative Programming Assumptions Memorandum.*

1. I-20 East – CDB to Gallery @ S. DeKalb Regional Rail
    a. Low Estimate 2030 Segment Daily Boardings: 19,000
    b. Possible Local Match for Federal Funds for Full I-20 East Line
    c. Some initial planning work for this project in terms of demand, corridor characteristics and potential station locations has been performed
2. Marietta to Cumberland Regional Rail
    a. Low Estimate 2030 Segment Daily Boardings: 10,000
    b. No river crossings, potential to combine maintenance at existing CCT facility in Marietta
    c. This project allows completion on the southern portion of the Cobb Regional Rail trunkline, including the maintenance facility, while the design, construction and environmental challenges of the segments to Perimeter Center and Downtown/Midtown Atlanta are resolved.
3. The first quarter of the Atlanta Beltline Project.
    a. Low Estimate 2030 Segment Daily Boardings: 10,000
    b. Funded Locally through TAD
    c. A large amount of initial planning has already been completed or is in process in the Fall 2008 by MARTA and Atlanta Beltline, Inc.
4. Peachtree Streetcar Phase 1
    a. Low Estimate 2030 Segment Daily Boardings: 9,400
    b. Funded locally through CID or City of Atlanta Parking
    c. The Peachtree Corridor Partnership and other groups have advanced some initial planning on this project.
5. Downtown Griffin Commuter Rail
    a. Low Est. 2030 Segment Daily Boardings: 3,100
    b. Implemented by GDOT, inclusive of Spalding County

c. This project has had extensive environmental work completed, though some of it may need updating.

d. This project is also funded through Lovejoy in the 2009-2013 TIP

e. Route is also part of the Southeast High Speed Rail corridor

Additionally – in preparation for rail service along segments in phase 2, Pre-Rail Arterial Rapid Bus would start (as part of the 25 percent expansion) in the following corridors in preparation for future rail service:

1. GA 400 – Not rail in Early Action Program because of river crossing, location of maintenance facilities – Potential 2021 opening
2. Cumberland – Perimeter – Not rail in Early Action Program because of river crossing. Could be implemented as an upgrade of the existing MARTA route 148. – Potential 2018 opening
3. Cumberland – Downtown/Midtown – not rail in Early Action Program because of river crossing. Could be implemented as an upgrade on the existing CCT route 10. – Potential 2022 opening
4. Norcross – OFS – Not rail in Early Action Program because of isolated segment and dependence upon redevelopment of OFS site – Potential 2016 opening

Fast Tracks Arterial Rapid Bus Segments, that could in the future become rail, but are not envisioned currently, include:

1. Fulton Industrial Blvd
2. South Fulton Parkway
3. Memorial Drive (Avondale/Kensington to Stone Mountain and Snellville)
4. Extension to Snellville because of transfer with Regional Suburban Bus network in Snellville
5. Campbellton Road

The entire regional suburban bus network is also included in the Fast Tracks Early Action Program and Park and Ride Development remains unchanged from the existing TIP. Finally, planning for some of these projects is assumed to take place prior to 2011 and identification of the new funding source. This planning work is assumed to be in the regular planning budgets and includes such necessary items as the OnBoard Survey, on-going TPB staff activities, and ongoing regional planning.